AEROSOL AGE

THE MAGAZINE OF PRESSURE PACKAGING

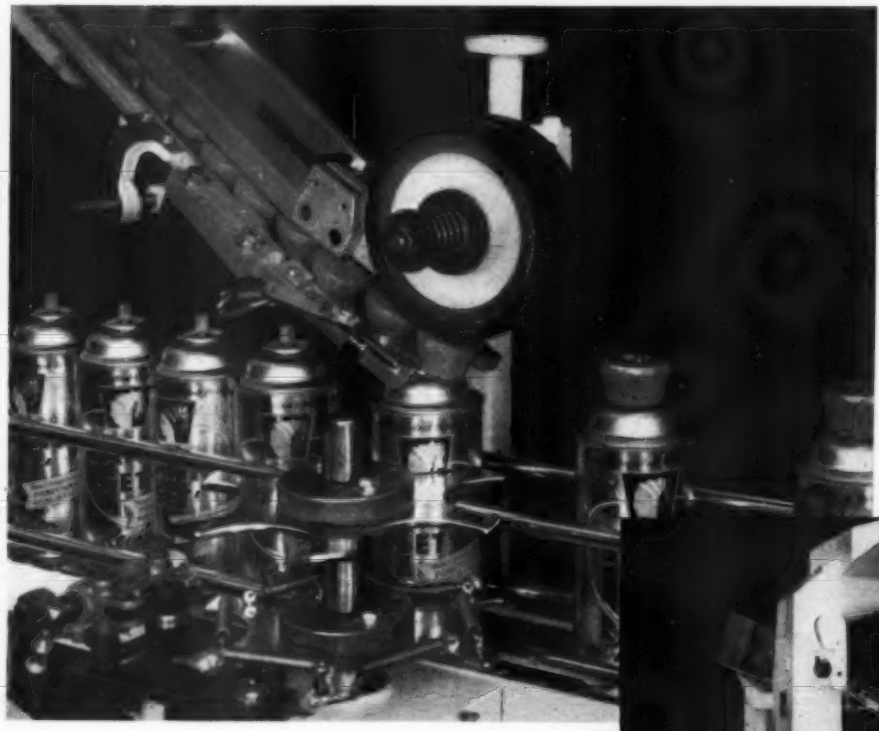
IN THIS ISSUE:

- New Anti-Perspirant Package
- Leakage in Aerosol Containers
- Story of A Swiss Custom Filler
- Residual Insecticides
- Redbook Surveys How Sprays
- New Japanese Valve
- PI Survey of Drug Field

SEPTEMBER, 1961

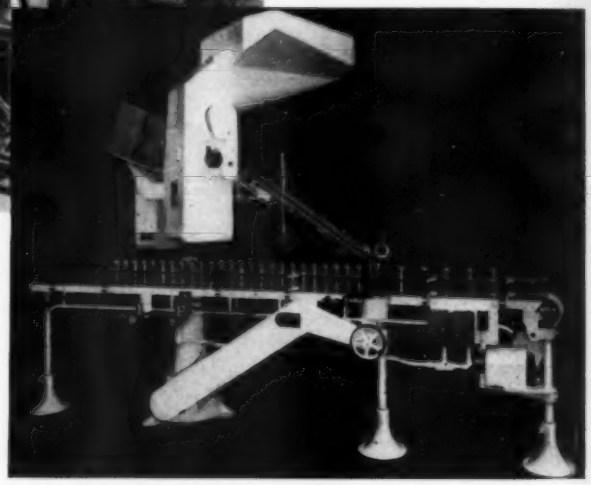
TOP EFFICIENCY WITH PNEUMATIC'S

OVERCAPPER



HANDLES WIDE RANGE OF CLOSURES, CONTAINERS AND SHAPES, with minimum parts required.

Rounds • Tapers —all sizes



It's fully automatic—no assist needed at all! Conveyor and star wheel are constantly moving, feeding containers without pause through the cap chute release point. Each container "picks off" its own overcap, which is then properly seated by a rubber faced spring-mounted wheel.

Extremely flexible, the OVERCAPPER is designed to apply an extensive range of closure as well as container sizes and shapes, with a minimum need for special parts. A safety device keeps containers in "timed" relationship with spider, whether there is a solid line or single container on the conveyor.

Particularly adapted to aerosol containers, the OVERCAPPER is equally effective for any application where friction closures are used. Speeds from 120 to 200 per minute . . . can be geared lower if desired.

We'll gladly send you more information about this unit as well as details on automatic unscrambling, air cleaning and capping equipment.

PNEUMATIC SCALE CORPORATION, LTD., 67 Newport Avenue, Quincy 71, Mass. Sales Offices: *New York; Chicago; Dallas; Rochester.* Agents: *Fred Todt Company at Los Angeles, San Francisco and Seattle. Rockwell Pneumatic Scale Ltd., Edgware Road, London, N.W. 2, England, O.R.M.A., Paris 8, France. Carbert Manufacturing Co., Division, Cambridge, Mass. Delamere & Williams Co., Ltd., Toronto.*

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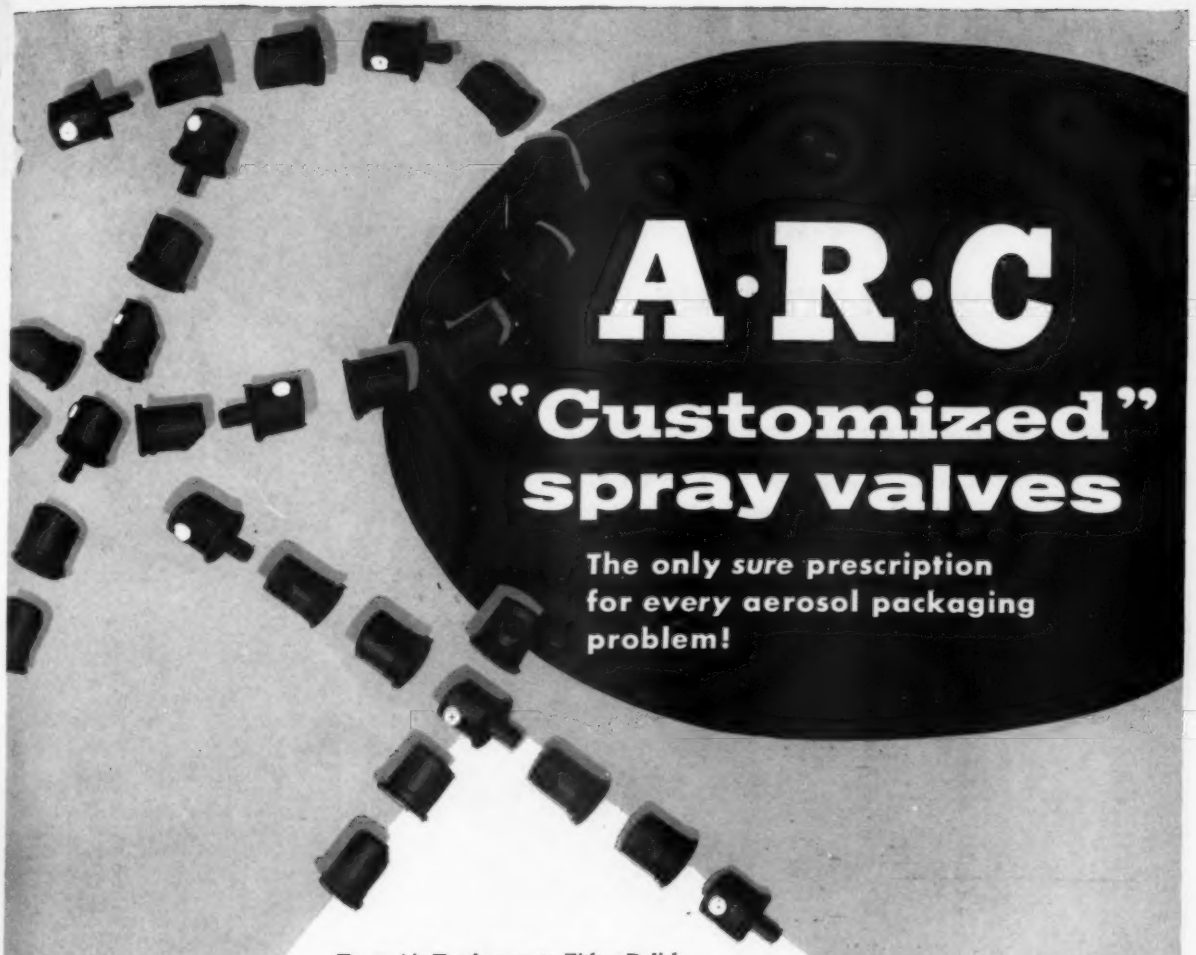
Packaging and Bottling Equipment



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The only *sure* prescription for *every* aerosol packaging problem!

From Air Fresheners to Zither Polish . . . whatever you package in aerosols, there's a "Customized" A-R-C Spray Valve to dispense it with maximum efficiency. Any one of *three* basic valve designs can be adapted *exactly* to solve your individual problem by the proper combination of stock components.

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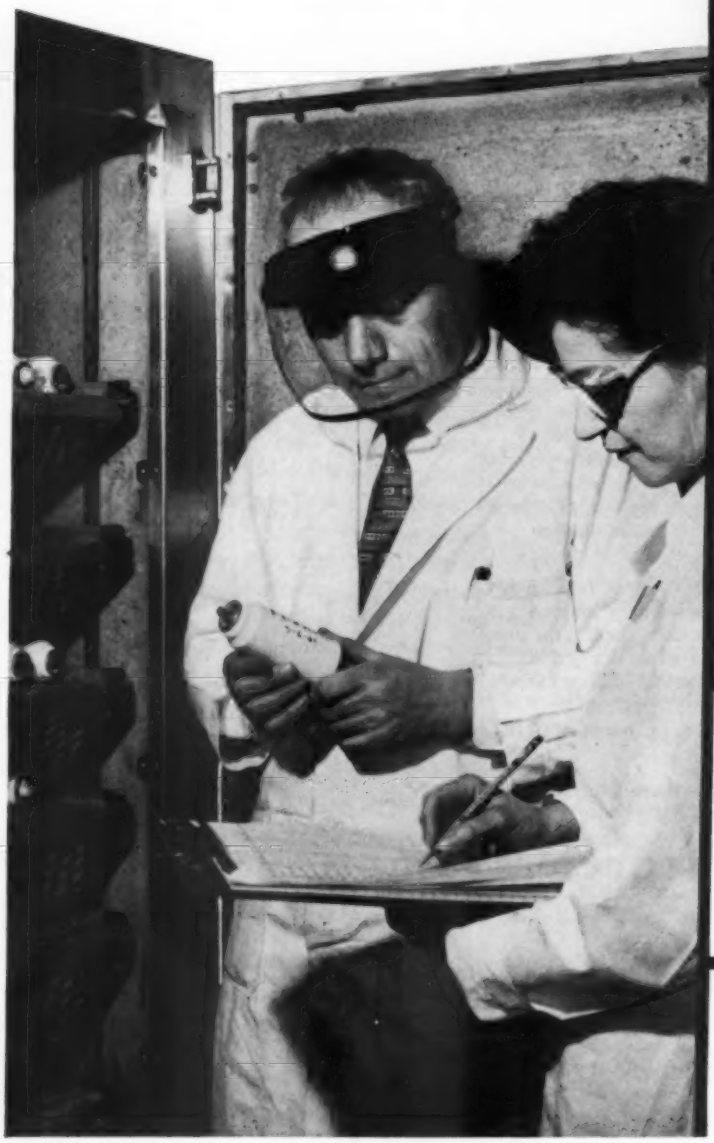

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THIS MONTH'S COVER

A new concept in a valve and cap combination, just announced by Risdon Manufacturing Co., Naugatuck, Conn., is predicted by Risdon to open the way for a whole series of new anti-perspirant aerosols. Because it prevents the evaporation of the metallic salts usually common to such formulations, the new valve and fitting cap can reportedly be used with more effective formulations. A report on this development, with additional photograph, begins on page 29.

SEPTEMBER, 1961 VOL. 6, No. 9

AEROSOL AGE

The magazine of pressure packaging

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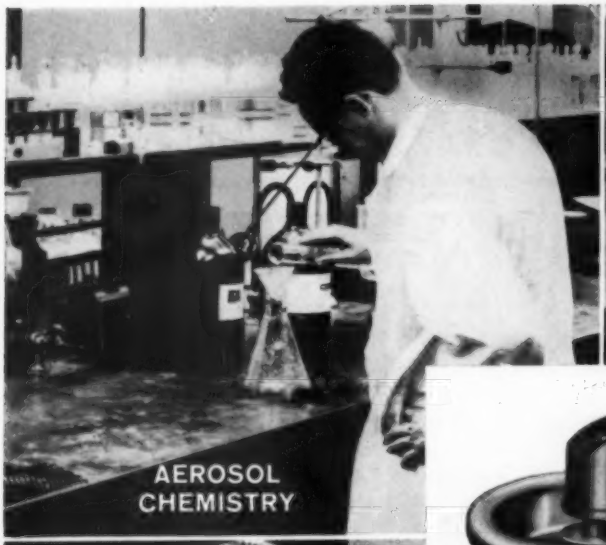
Address all correspondence to Box No. 31, Caldwell, N. J.

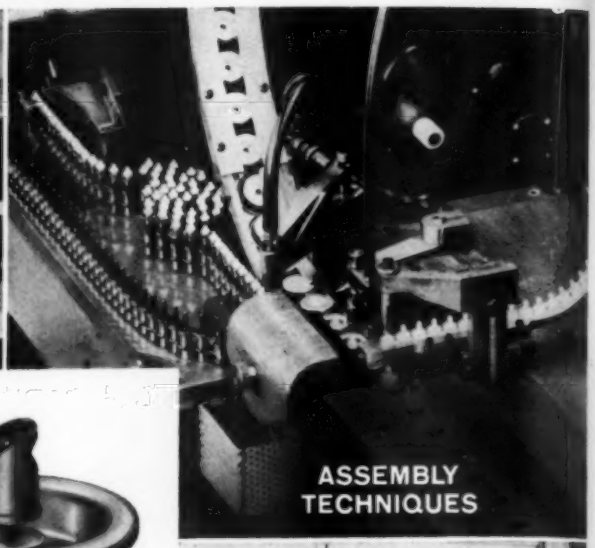
Subscription Rates: U. S., one year $3, two years $5; Canada and Pan America one year $4, two years $7; Foreign one year $7, two years $12.

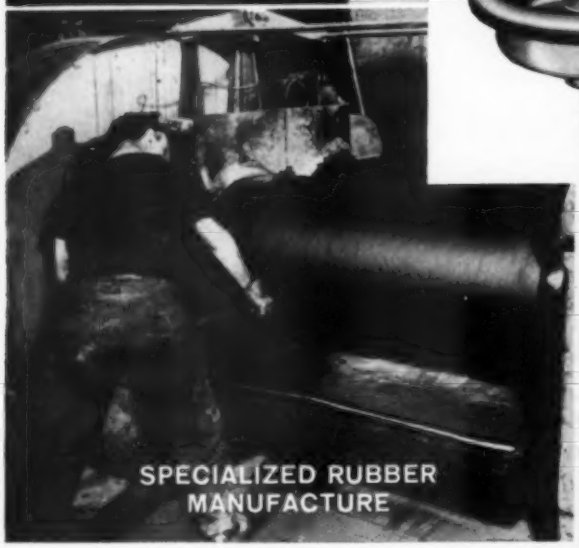
Single Copies: current issue: $0.50. Back issues $1.00. Postage and handling charges for foreign countries on single copies: $1.00.

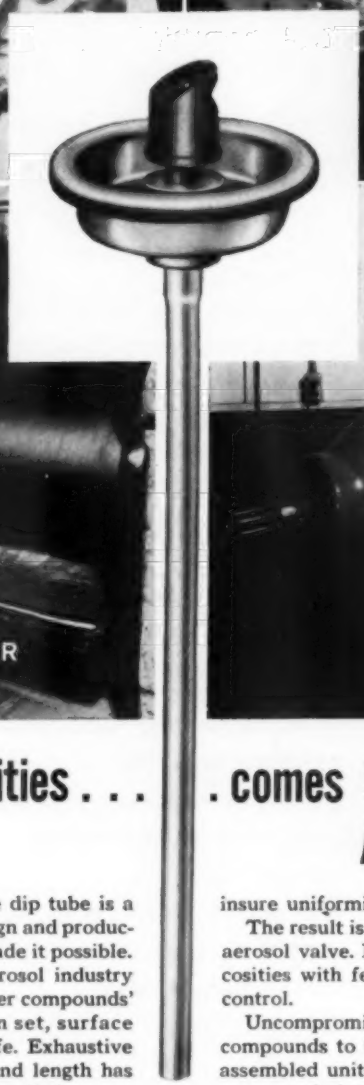
Published monthly on the 25th by Aerosol Publications, Inc. at 229 West 28th St., New York, N. Y. Advertising, Subscription and Editorial Office: Box No. 31, Caldwell, N. J. New York telephone: BArclay 7-7121. Advertising rates on application. Closing date for copy—10th of the month preceding month of issue.

Second-class mail privileges authorized at Post Office, Caldwell, New Jersey, with additional entry at New York, New York.









From Unmatched Facilities . . . . comes Schrader's Superior Aerosol Valve

Every part of this aerosol valve except the dip tube is a Schrader product...and only Schrader's design and production facilities, greatest in the aerosol field, made it possible.

For example: techniques new to the aerosol industry were developed by Schrader to control rubber compounds' hardness, high resistance to compression set, surface smoothness, size uniformity, and service life. Exhaustive research into wire sizes, diameters, pitch and length has provided a superior valve spring with controlled tension. Rigorous new tests and special equipment were devised to control quality of each component. New production methods were used to insure uniformity and precision.

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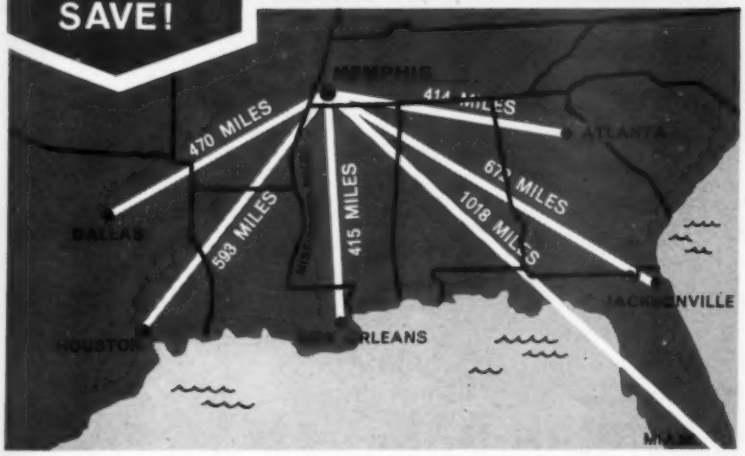

Because of its strategic location in the Mid-Center of the Mid-South, Hot Shot Quality Products can save you considerably, both time-wise and freight-wise. Transportation from Memphis south, southeast, and southwest can be arranged over eight rail lines, in our own trucks or common carriers, or by barge down the Mississippi River.

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Hot Shot Quality Products has a proven performance record of successfully merchandising aerosol products through all levels of distribution. More than eleven million units have been sold.

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We can package and fill from 20 to 50 thousand units on each eight-hour shift.

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We maintain professional advertising specialists and trained laboratory and research experts to help you with your marketing and technical problems.

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You have available to you, for as long as your requirements demand, complete and extensive warehousing in six major southern cities.

the South's newest and most complete aerosol filling plant!

Whatever you package in aerosols, it will pay you to investigate the *complete* facilities of Hot Shot Quality Products, Inc., Memphis, Tennessee, in serving your manufacturing, filling, and packaging requirements.

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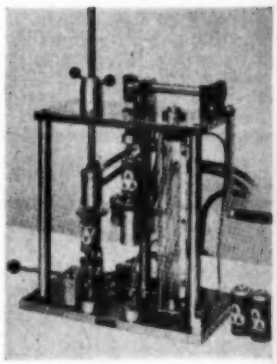

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Specific Gravity (20/20°C) max	0.7911
Specific Gravity (60/60°F) max	0.7942
Acidity, as acetic acid (wt per cent) max	0.002
Color (Pt-Co) max	10
Non-volatile Matter (mg/100 ml) max	2.0
Distillation (°C)	
Initial min	77.5
Dry Point max	79.0
Permanganate Time (minutes) min	25
Residual Odor	Nil
Water Solubility	Clear at Infinite Dilution
Appearance	Clear and Free of Suspended Matter

For more complete information on any Enjay chemical, contact: Enjay, 15 West 51st Street, New York 19, N.Y.

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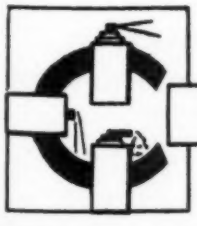

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INDUSTRY MEETING CALENDAR

American Chemical Society, 140 national meeting, Chicago ..... **Sept. 3-8**

Drug, Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa. ..... **Sept. 14-17**

Chemical Specialties Manufacturers Association, Meeting of Board of Governors, Division Executive Board and Committees, Oyster Harbors Club, Osterville, Mass. ..... **Sept. 25-27**

Society of Cosmetic Chemists, annual seminar, Barbizon Plaza Hotel, New York ..... **Sept. 26-27**

National Hardware Show, McCormick Place, Chicago ..... **Oct. 2-6**

Federation of European Aerosol Associations, 3rd International Aerosol Congress, Lucerne, Switzerland ..... **Oct. 3-8**

Packaging Institute, 23rd Annual National Packaging Forum, Biltmore Hotel, New York .... **Oct. 18-20**

National Agricultural Chemicals Assn., annual meeting, Homestead, Hot Springs, Va. **Oct. 29-Nov. 1**

Canadian Manufacturers of Chemical Specialties Association, fourth annual meeting and conference, Royal York Hotel, Toronto, ... **Oct. 30-Nov. 1.**

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C. ..... **Nov. 2-4**

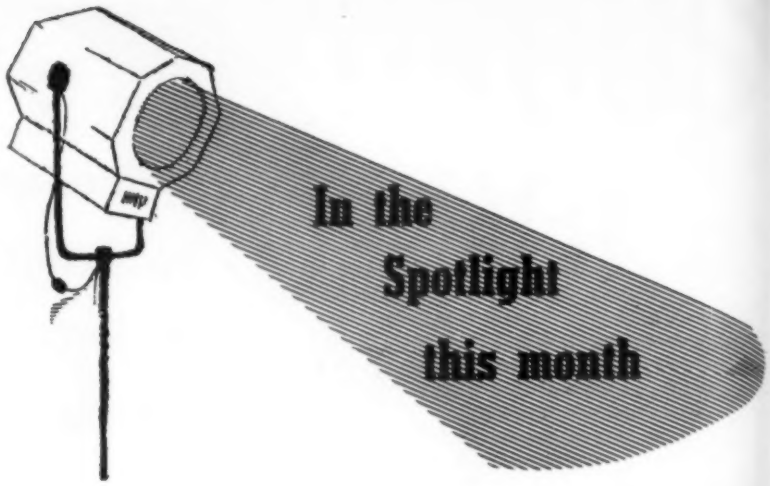
Packaging Machinery Manufacturers Institute, Cobo Hall, Detroit, Mich. ..... **Nov. 7-10**

Chemical Industries Exposition, Coliseum, New York **Nov. 27-Dec. 1**

Society of Cosmetic Chemists, annual meeting, Biltmore Hotel, New York ..... **Nov. 28**

Chemical Specialties Manufacturers Association, 48th Annual Meeting, Roosevelt Hotel, New York, N. Y. ..... **Dec. 4-6**

Chemical Specialties Manufacturers Association, 49th mid-year meeting, The Drake, Chicago ..... **May 14-16, 1962**



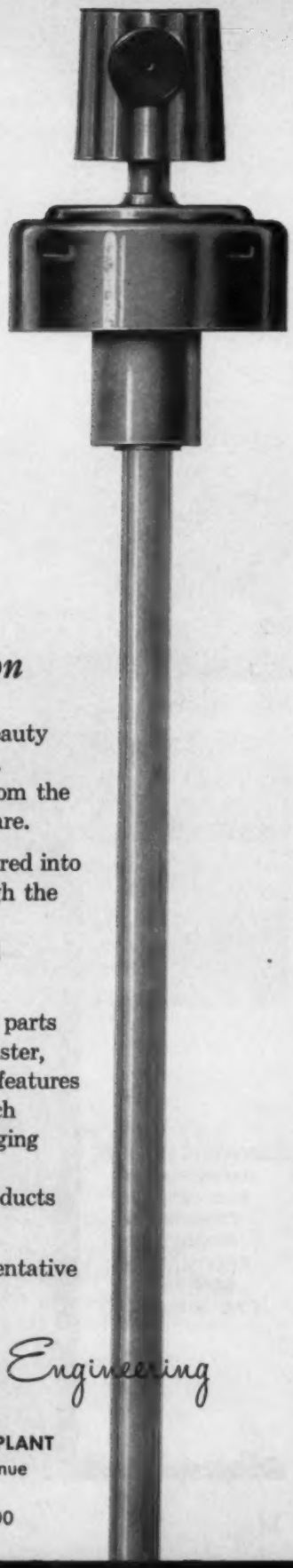
- **Swiss Filler Relies on Small Accounts, Quality Control** . . . Aerosol Service, which in a few short years has become a leading European custom filler, is the subject of this exclusive **Aerosol Age** article beginning on page 20. Key personnel, filling equipment, and container handling are reported.

- **Leakage in Aerosol Containers** . . . How accurate is the water bath test for determining minute amounts of propellant leakage? Two Colgate-Palmolive researchers, on page 24, report on a study project to determine an answer to this and other questions about leakage.

- **Risdon Develops Valve-Cap Combination for Anti-Perspirants** . . . This month's cover story is an article describing a new development of Risdon Manufacturing Co. which is claimed will open the way for more effective anti-perspirant formulations in aerosol containers. Photographs and story appear on page 29.

- **Redbook Survey Analyzes Hair Spray Market** . . . A new survey just published by a leading woman's magazine ties together a variety of consumer market studies of aerosol hair sprays. Highlights of the Survey are reported on page 30.

- **A New Valve for Paints and Similar Products** . . .A Japanese valve manufacturer comes up with a new valve design which he claims will give more standardized spray patterns, Details on page 42.



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Quality

is a matter of natural perfection

A perfect stalk of wheat possesses inherent beauty and quality. Man-made products are different. The attributes of beauty and quality result from the application of skill, ingenuity, judgment and care.

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Penick makes a variety of non-systemic antibiotic specialties ideally suited to typical aerosol uses. Properly selected, they may be applied externally or administered topically through oral, ophthalmic and other orifices.

As foremost makers of bulk antibiotics, Penick should be your first source of supply. Our technical staff can recommend starting formulations and propellants and coordinate stability tests for you. Your inquiry will be handled promptly and in confidence.

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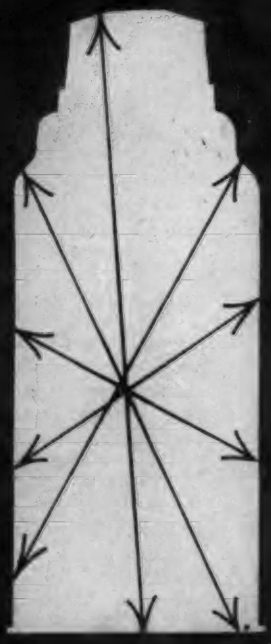
IS YOUR PRODUCT A "TIGER" UNDER PRESSURE?



SEAMLESS CROWN SPRA-TAINERS WILL HOLD IT!

Some high pressure products found in today's aerosols are as hard to handle as a tiger. Others, like delicate pharmaceuticals and fragrant cosmetics present different but equally difficult problems. For these hard-to-hold products the *seamless* Crown Spra-Tainer offers a safe and practical solution. As originators of the disposable aerosol can, Crown offers a full line of both seamless and fabricated aerosol cans in a wide range of sizes, for every type of product . . . plus more experience in this field than anyone else can provide. For your packaging problems call on the leader . . . call on Crown!

YOUR PACKAGING DESERVES CROWN QUALITY

cans • crowns • closures • machinery

CROWN CORK & SEAL CO., INC.

9300 Ashton Rd., Philadelphia 36, Pa.

SILICONE NEWS from Dow Corning

Sales secret: Silicones

Silicones in aerosols assure user satisfaction, repeat sales

Countless products that were once brushed on, daubed on, poured on, dusted on, or wiped on have been adapted to aerosol packaging for easy spray application. But today's alert consumer looks for more than fast, convenient, no-mess application. Performance is the real key to repeat sales, and *better* performance is what Dow Corning Silicones deliver.

In hair sprays, for example, silicone fluids provide more manageability, resist the effects of humidity. Hair stays softer, more lustrous; is easier to set and hold in place. *In skin preparations,* silicones repel water and water-borne irritants; prevent washing away. Yet the skin stays soft and fresh; is never left greasy.

Spray starch ends the fuss and work of old hard-to-make household starch. Now add a small amount of Dow Corning silicone emulsion — and ironing itself is easier. The silicones in the spray condition the iron's sole plate so the iron glides smoothly and easily; starch won't burn and stick to the plate.

Polishes last longer when formulated with Dow Corning Silicones. Spreading is more even; protective films form faster. And most important, a deeper, richer gloss is attained with minimum "elbow grease".

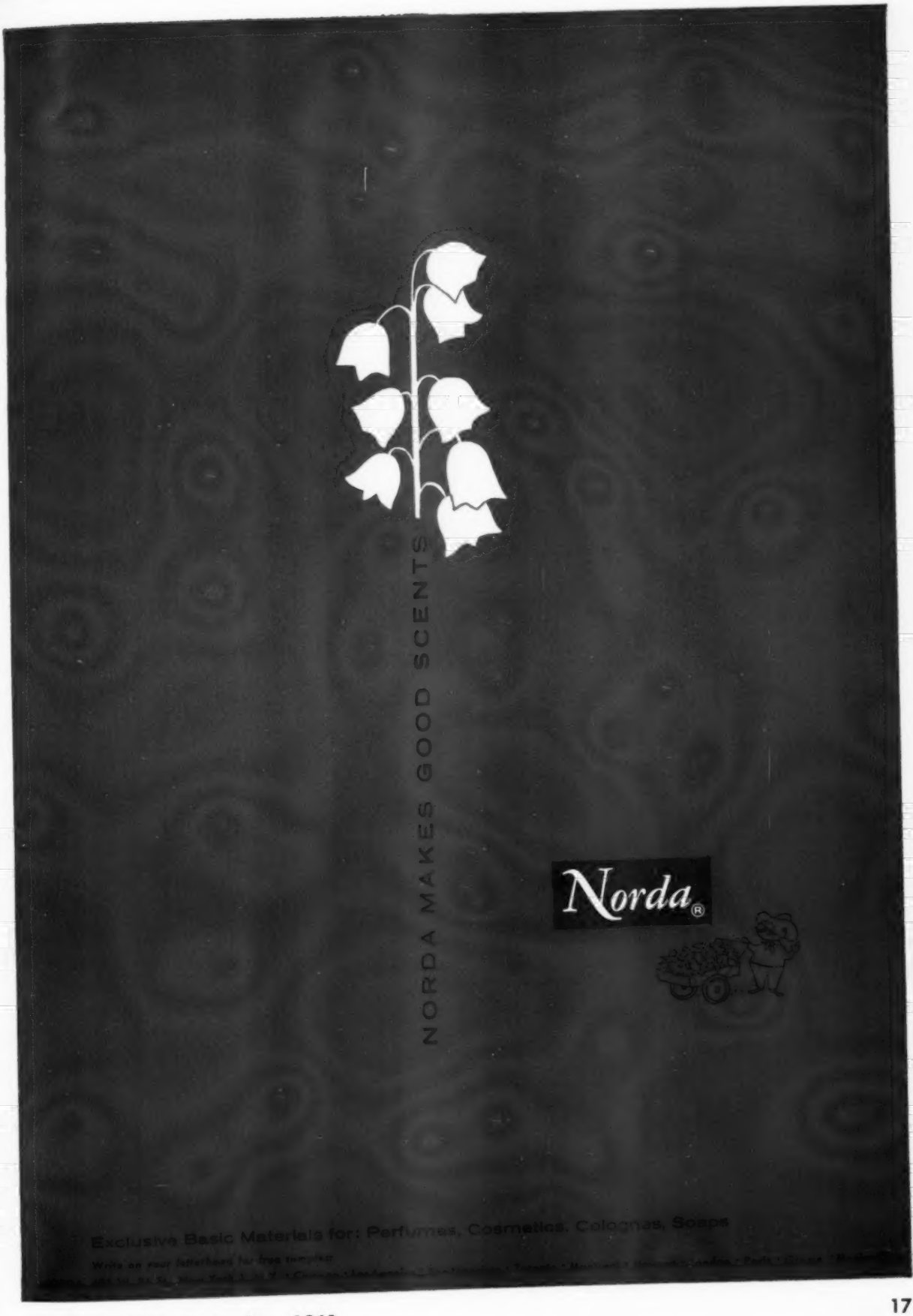
Silicones in aerosols solve many "sticky" problems for industry, too. Heat-stable silicone release agents make parts pop out of molds quickly, easily. Rejects, downtime and maintenance costs are slashed.

It's really no secret the way silicone performance assures lasting satisfaction and brand preference. Formulators and fillers alike have ready access to the wealth of useful data Dow Corning chemists have compiled. If you're not using it, we suggest you do so soon.

For the latest, most complete information on silicones, write Dow Corning Corporation, Dept. 0221, Midland, Michigan.

first in silicones

Dow Corning

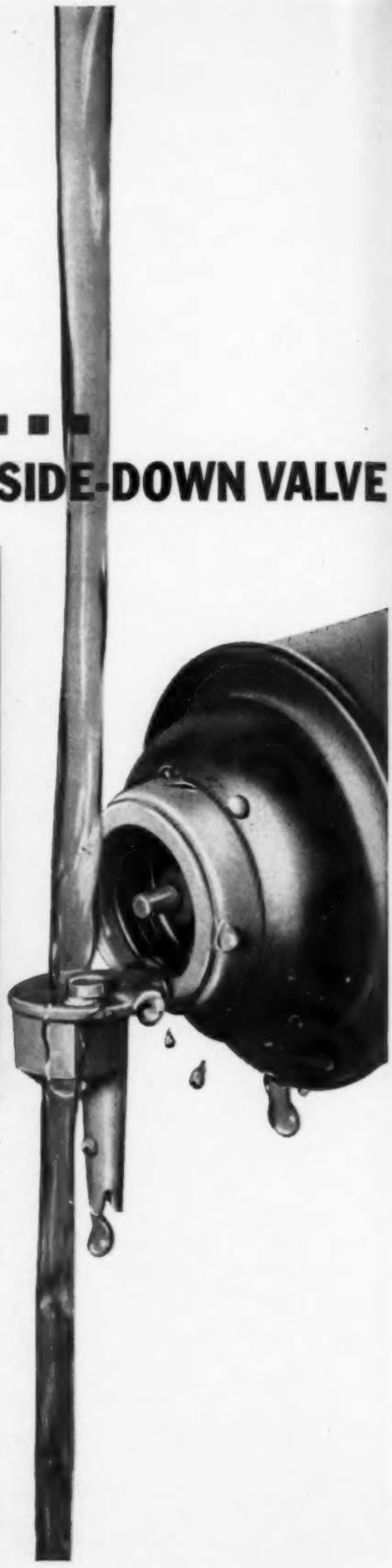

NORDA MAKES GOOD SCENTS
Norda®
Exclusive Basic Materials for: Perfumes, Cosmetics, Colognes, Soaps

April, 1961 Consumers Report says . . .

"The mechanisms (valves) were so designed that they could trap some topping in the nozzle where it could spoil and contaminate successive ejections."

NOT TRUE...

WHEN YOU USE PRECISION'S UPSIDE-DOWN VALVE



The new upside-down valve from Precision is constructed so that the spout may be opened and cleaned by merely holding it under the faucet. No contamination is then possible, and it allows complete evacuation of all the product in it's original pure form time after time.

Just one more example of that extra care and attention to detail you get with all Precision valves. It's the quality and know-how that assures you of satisfied customers!

Take care, take Precision valves for your aerosol products.

PRECISION VALVE CORPORATION
700 NEPPERHAN AVENUE, YONKERS, N. Y.

EDITORIALS

Where There's Smoke . . .

THE physical and chemical characteristics of the aerosol package have long made it the likely target of legislation aimed at reducing hazards of use in the home, in retail stores, and in warehouses and filling plants. Well-intentioned people in city and state governments frequently seize upon the undeniable fact that the sealed aerosol container constitutes a hazard (under extreme conditions of heat or misuse) as an excuse to initiate laws perhaps "loaded" against the aerosol.

The latest example of this approach is the new regulation promulgated by the New York City Fire Department to ban the use of flammable propellants in hair sprays and paints, lacquers, and paint-type products. Reliable reports indicate that this ban may be extended to prevent the sale (in New York City) of *all* aerosol products containing flammable propellants, although the Chemical Specialties Manufacturers Association has succeeded in obtaining a public hearing to examine the need for such a measure. The CSMA and its legal staff can be relied upon to put forth a good effort to change the thinking of the Fire Department research people who advocate so stern a measure.

Self-designated "enemies" of the New York Fire Department's approach, many of whom are presently at work marshaling evidence to prove the safety of flammable propellants, should not overlook the fact that there exists a small but substantial percentage of the fillers and suppliers (some of them CSMA members) who can offer valid arguments *in favor* of the ban. Their position is that flame extension and other approved flammability tests do not constitute the final word on whether, for instance, a specified number of "leakers" in a sealed trailer-truck of aerosol containers might not create an unexpected hazard; or that the same percentage of "leakers" in a warehouse might not set off a small explosion or major fire.

Arrayed on the other side are the impressive statistics of the number of such containers that have been safely shipped, sold, and used in the home. Also, there are few in the industry who would deny that the time-tested flammability tests do indicate the relative safety of the product *in actual use*. But the fact that experienced aerosol industry spokesmen remain unconvinced indicates that a public hearing on the measure will be far from a "piece of cake" for the CSMA Committee's efforts to change any pre-conceived notions by the N. Y. Fire Department.

In the light of the present ruckus in New York City, and an earlier false-alarm move to ban propane-charged shaving creams in Philadelphia, what can the industry do to protect itself from further mis-directed efforts to "protect the consumer from the hazards of aerosols?"

One suggestion made to this magazine is that the industry consider establishment of a "seal of approval" (similar to the "UL" of the Underwriters' Laboratories) indicating a particular product is safe for use as indicated on the label. Such a seal could not constitute an endorsement of the quality, but would instead signify approval of the safety features of the product. Of course, the issuance of such seals would have to be done on the basis of carefully established scientific tests, and it could not be allowed to fall into the hands of pressure groups (for various factions of the industry). Neither could it be permitted to degenerate into a money-making device on the part of the organization awarding the seal.

Another suggestion, less in the "blue sky" cate-

(*Continued on Page* 84)

Custom Filling in Europe

Leading Swiss Filler Relies on Quality Control to Attract Small Accounts

A PRETTY little agricultural town in Switzerland, today taking on the appearance of a thriving suburb, is the site of one of the more progressive aerosol filling companies in Europe. Located on the Swiss-German border half way between Basel and the German border city of Loerrach, the town of Riehen is the home of Aerosol Service AG, a company with an established reputation in the European aerosol industry.

This company has its plant in a historic mill first built to ground wheat to flour back about 1413. In 1634, during the Thirty Years' War, the mill was attacked and plundered by Austrian cavalry.

In 1931 Emil Hirschburger, current president, founded a small business in the mill to make soap and cosmetic products, most of which were then sold by a house-to-house organization. The trend toward custom manufacturing of soap for marketers during the late 1930's and 1940's laid the groundwork for Mr. Hirschburger to expand his activities into the newly growing aerosol field early in the 1950's.

Since aerosol packages were relatively unknown on the Swiss consumer market at that time, it was with some hesitation that Mr. Hirschburger decided to go into the business. His first move was to order a Mojonnier cold filling line from the United States, and when this arrived in the spring of 1953 his firm was ready to "get its feet wet" in aerosols.

Later that same year Fritz Schmutz joined the company as technical manager. Mr. Schmutz had just spent a year working as a chemist in the United States, and for nine months of that time (in 1952) had been acquiring an aerosol education with Whitmire Research Laboratories, St. Louis. From contacts with propellant and machinery manufacturers he heard about the new Swiss filling operation and went home to Switzerland to join the company.

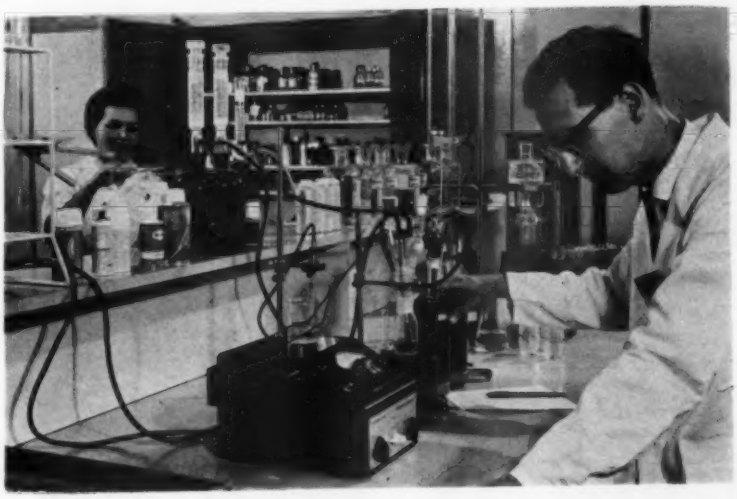
The year 1953 was a crucial one for aerosols in Europe. Word about the success of the package in the United States had spread fairly quickly, and while Aerosol-Service was experimenting with new formulations, similar work was being carried on in Italy, West Germany, Britain and France. In most of these companies large can makers were becoming interested in the new package and they established filling lines and in some cases also began production of valves.

Aerosol-Service decided to restrict its activities to custom filling, avoiding proffered connections with the can or valve business. Mr. Schmutz suggests that this insistence on custom filling *only* may account for the company's success in the field, since a good many fillers in Europe currently still make valves or cans. The latter, he contends, are of necessity limited

A sampling of the many product types filled by Aerosol Service is pictured at left.

A product evolves from idea to final package . . .

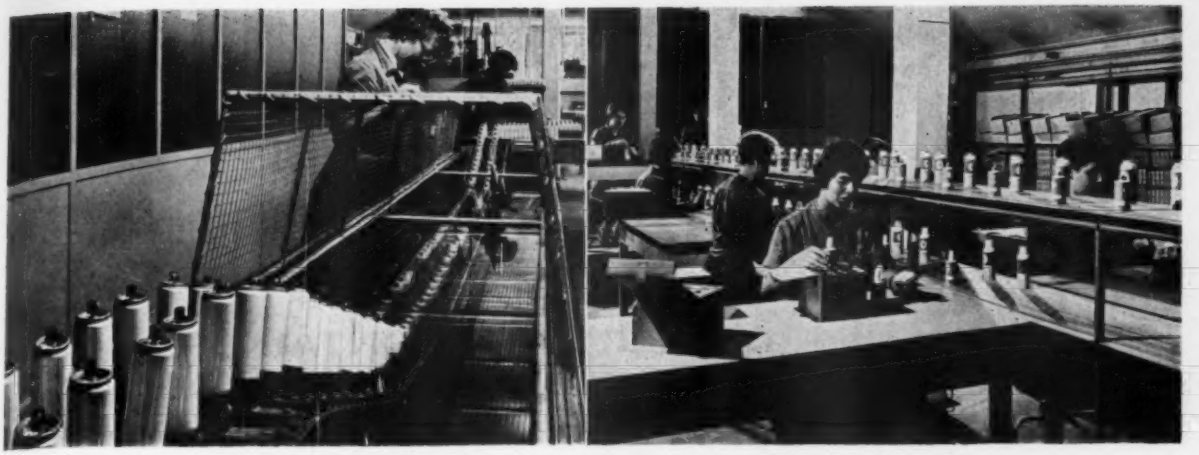
Emil Hirschburger, Aerosol Service president (left), discusses economics of new customer's product with D. W. Hannich, purchasing manager, and M. Furst, company accountant.



Axel Marks, laboratory director, is charged with determining feasible package for new product idea. His instruments tell him about such considerations as product-container and propellant-product compatibility.

Conversion of product idea and package to production stage are discussed by Arnold Loeliger, equipment supervisor; Egon Schneebeli, production manager; and Fritz Schmutz, technical manager.

Top photo: Mojonnier cold filling line modified with special valves and Swiss electronic timers being used to fill room deodorant. Below: automatic pressure filling equipment, designed by Mr. Schmutz, went into operation last year.



Water bath with special conveyor for aluminum monobloc cans. Extra room in water bath is for magnetic chain for tinplate cans to be installed this autumn. Right: packaging room, where final button and cap application, labeling, and cartoning is done.

in their choice of components to those which they make—thus reducing the variations in the package they can offer their customer.

"The industry in Europe, and especially in Switzerland," he reports, "took some time to get used to custom filling and many companies hesitated to give a product out to be packaged. Nevertheless, the economics of Switzerland dictated that most companies could not establish their own filling lines, and today, despite a lot of competition, Aerosol-Service fills more than 50% of all aerosols produced in Switzerland."

THE FIRST of the company's filling lines, the Mojonnier cold fill unit, had a capacity of 600 to 1,000 cans per hour. This line has since been modified and is still in operation for insecticides, industrial and household products. In 1954 a hand-operated pressure-fill line was installed, adding to the versatility of the operation.

However, about this time Mr. Hirschburger's firm was becoming better geared to the Swiss business, and discovered that in contrast to the general experience in the custom filling business in the U. S. and in some of the other larger countries, the bulk of the company's business was in very small orders. The 100,000-can order was rare, and orders of 100 or so are so frequent that last year (1960) Aerosol-Service filled about 450 orders—roughly two runs a day. Further evidence of the small orders is a breakdown of product types filled by the company. About 27% of the products filled in 1960 consisted of hair lacquers, 26% insecticides, 11% room deodorants, 10% personal deodorants, and 6% sun-tan lotions. The remaining 20% is divided among the myriad products which are marketed in Switzerland.

Because of this "small run" problem, Mr. Schmutz decided to design his own filling line, one that had a capacity of about 10,000 units per day, very easy changeover and fast cleaning, and that could be adaptable for cans of different heights, with diameters from 35 to 72 mm. In June of 1960 the prototype of this line went into production, and in May of 1961 a second line working on the same principle was added to the company's facilities.

These lines, with a capacity of more than 1,000 standard-size cans per hour, each employ two turntables on a straight conveyor, thus enabling one operator to put the cans on the conveyor and also put the valves into the cans. On the first turntable the cans are cleaned of foreign matter (which is blown out and then carried away by exhaust fans). Then they are filled by an electronic timing device (the newer line utilizes a volumetric filler), and purged. From this turntable the cans move back onto the conveyor where the valves are inserted (by hand) and then move to a second turntable to be crimped and pressure-gassed. Finally they move back onto the conveyor and through a magnetic water bath.

At present the filling capacity of Aerosol-Service consists of the following: one cold filling line; one hand-operated pressure line for small runs, difficult products, glass bottles, etc.; and two automatic filling lines. A second cold filling line and a pilot cold line for work with pharmaceutical products. Mr. Schmutz points out that this capacity gives the company enough production reserve to serve the requirements of its customers for a long time ahead.

A major part of Aerosol-Service's

(*Continued on Page* 79)

Small-run cold filling installation is used for pilot plant runs or special pharmaceutical products.

Leakage

OF AEROSOL CONTAINERS

By Gilbert D. Miles and Ruth M. Hupprich
Colgate-Palmolive Co.
New York, N. Y.

SINCE the appearance of insecticide and whipped cream as aerosols on the consumer market about 15 years ago, aerosols have become commonplace items in the American homes. Few consumer packaged goods products have placed greater demands on the quality of the components of the package and assembly methods. One of the important requirements of good quality is that the assembly should be free from excessive leakage of propellant. Regardless of the many factors which may contribute to leakage, the industry is generally dependent upon visual inspection in a water bath as determination of leakage.

If we assume that a one millimeter bubble is the smallest that will be observed and further that these bubbles must be formed at a rate of at least 12 per minute to be noticed, we can estimate the minimum practical sensitivity of our existing inspection methods. Calculations indicate that observation leakage rates *below* 3 liters per year are unlikely by these methods. Obviously for many products the sensitivity of the water bath inspection is far below the desired level required to insure high quality products. In our shaving creams, for example, we specify the propellant fill as 9.8 $\pm$0.3 grams per 308 grams of soap solution. This weight of propellant is roughly equivalent to 3.9 liters of gas under standard conditions.

Our standards are aimed at top quality for at least a year after production. It follows that leakage rates must be kept below approximately 1 gram per year for a 12-ounce container if these objectives are to be met. Clearly, water bath inspection is only an indicator of trouble far below the level of sensitivity required.

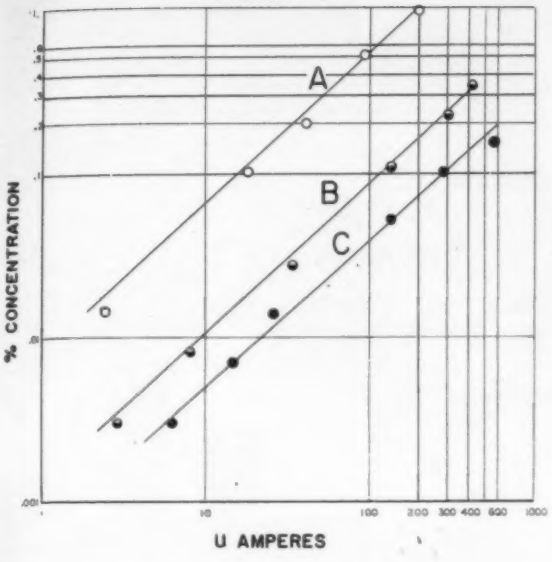
Our search for a rapid, reliable means of examining production units led us to the purchase of a FIAD hydrocarbon detector made by the Carad Corp. of California. This instrument was developed as a portable device for smog control work. The manufacturer's specifications indicate that it is sensitive to parts per billion of hydrocarbons. Reading taken on the instrument confirms this. Figure I shows the log log plot of instrument reading as a function of concentration in air of dichlorodifluoromethane, acetylene, and an isobutane-mixture as used in our shave cream propellant.

THE instrument detects hydrocarbons in gas samples which are introduced into the device through a port by means of a hypodermic syringe. A convenient gas sample size is 10 to 30 milliliters. The gas mixtures used to obtain these calibration curves were made by filling hypodermic syringes with the test gas. Subsequently, the syringe was discharged into a large volume container which had been filled with hydrocarbon-free nitrogen. Several dilutions were made from the initial solution.

Our procedure for determining leakage rates from aerosol containers is to place the test can in a large glass jar. The screw cap of the jar is closed after flushing the jar with hydrocarbon-free air. The jar cover is provided with a hole extending through the metal cover and the cap liner. This hole is closed by a piece of aluminum foil held in place with wax. It is through these foil covered ports that samples of gas are withdrawn. Prior to removing the sample with the hypodermic syringe the gas inside the jar is agitated by repeatedly filling and discharging the syringe, while the needle is inserted through the foil disc. This method has proven adequate for the purpose of obtaining uniform samples of gas. Following withdrawal of the gas samples, the needle hole in the foil is closed with a drop of micro crystalline wax. The sensitivity of the instrument is such that reliable readings can be taken after an hour or two of storage in the jar.

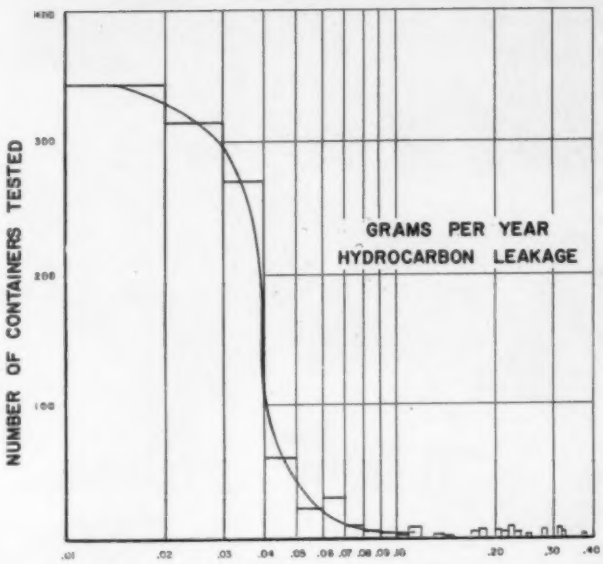
Figure II shows the results obtained on examination of 1113 12-ounce, three-piece side-seam cans, which were chosen because their construc-

FIGURE 1



FIAD instrument readings in micro amperes as a function of gas concentration. A is Dichlorodifluoromethane, B is Acetylene, and C is Isobutane —Propane mixture.

FIGURE 2



Leakage rates calculated from observations made on 1,113 three-piece, 12-oz. aerosol containers, representative of regular production.

tion affords the greatest opportunity for leakage. The valve assembly was made by Precision Valve Corp. and the filled containers were taken at random from our production. The samples represent units from 10 shifts covering a period of 16 weeks.

During the course of our work as data were being accumulated, it became apparent that critical leakage rates, i.e., leakage in excess of a few tenths grams per year were very rare. As a matter of fact, such leakage rates have never been observed. On this basis we tried to increase our inspection rate by directly sampling gas contained in shipping cases, which held one dozen individual units. This approach was abandoned, however, after some trials proved unsatisfactory. Our hope had been that we could, by examining the shipping cases, find an occasional container which might be leaking at a rate 10 times higher than the average. It was observed, however, that cases in the interior of pallet loads attained only very low hydrocarbon concentrations even though gas escape from them was inhibited by the surrounding cases. The highest concentration of gas measured in a case was 0.004% hydrocarbon.

IN order to measure the reproducibility of the test, five 3-piece cans were placed in separate glass jars. These jars were flushed out with hydrocarbon-free air and one hour later samples of gas withdrawn and analyzed. This procedure was repeated five times on each container. The results were identical for each of the repeat measurements. It should be noted that variations in the observed leakage rates can occur unless certain precautions are observed. The most important variables are, 1) temperature of the test container and, 2) the accidental contamination of the air used to flush out the test jars. In our work we always ran a blank on the compressed air used to flush out the test jars.

We have attempted to determine whether there are any trends in leakage rates as a function of time after the container is gassed. So far, our conclusion in this respect is based upon measurements obtained from 50

(*Continued on Page* 74)

TABLE I

LEAKAGE RATES OBSERVED FOR 50 LABORATORY-FILLED 12 OZ., THREE-PIECE CONTAINERS AS A FUNCTION OF TIME AFTER GASSING

Time After Gassing	Highest Rate GMS/YR	Lowest Rate GMS/YR	Average Rate GMS/YR
One Day	0.36	0.007	0.04
One Week	0.39	0.038	0.074
Two Weeks	0.46	0.028	0.056
Five Weeks	0.36	0.028	0.077
Eight Weeks	0.06	0.028	0.035
Thirteen Weeks	0.043	0.019	0.034

Among the foursomes were these two. From left: Clarence Carter, Continental Filling; Don Menhennett, Eveready Products; Ralph Schwaikert, Bon Ami; and Jack Campbell, Continental Filling. Ted Herst, Foster Forbes Glass; C. Pennock, Parfums Ciro; and Don Tuttle and Walter Beard, Risdon.

Aerosol Invitational Golf Meet Is Won By Clairol Executive

THE Stanley Kreps Memorial Trophy, emblematic of the best golf game played at the annual Aerosol Invitational Golf Tournament, this year went to a player from the Clairol Co. for the second consecutive year. Joseph Freedman, with a cool 82 shot on a 90-degree August 8th afternoon, took the trophy back to Clairol in the absence of last year's winner, Richard Gelb, who wasn't able to play for it.

Mr. Freedman's score, best for all of the guests playing in the tournament, enabled him to gain possession of the large trophy for a year, and to keep a smaller replica permanently. Actually his score was bettered by two of the host players, but these do not qualify for the cup.

The seventh annual tournament was a special invitational affair sponsored by Aerosol Age, Aerosol Research Co., General Chemical Division of Allied Chemical Corp., American Can Co., Bridgeport Metal Goods, Inc., Clayton Corp., Continental Can Co., Crown Cork & Seal Co., E. I. du Pont de Nemours & Co., Emson Research Co., Foster Forbes Glass Co., Metal Fabrications, Inc., Oil Equipment Laboratories, Owens-Illinois Glass Co., Peerless Tube Co., Precision Valve Co., Risdon Manufacturing Co., A. Schrader's Son Division of Scovill Manufacturing Co., Soap and Chemical Specialties, V.C.A., Inc., and Wheaton Plasti-Cote Co. It was held at Winged Foot Golf Club, Mamaroneck, N. Y.

Mr. Freedman was closely pursued by another good industry golfer, Lou Marviney of J. B. Williams Co., who won second low gross with an 83. Among the hosts, Jim O'Neill of Crown Cork & Seal shot the best game

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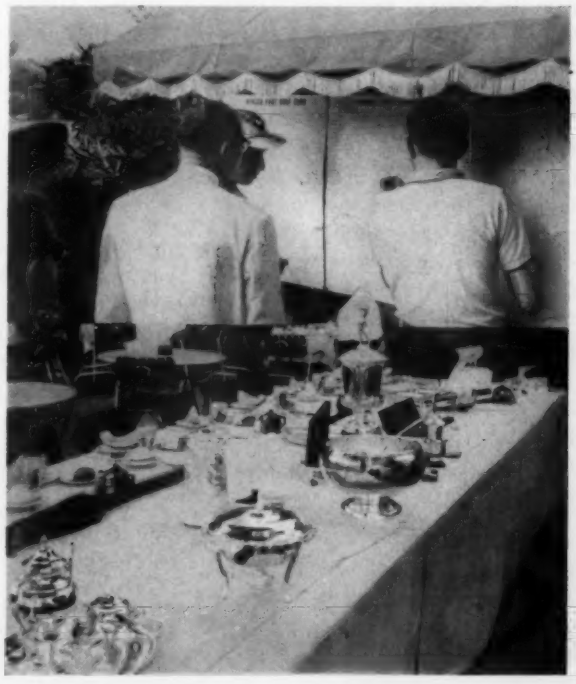

Len Cannella, Continental Can, chairman of the scoring committee, and Davis Phillipson, Aerosol Techniques, check scores with club scorer.

A view of the prize table. Stanley Kreps Memorial Trophy is tall cup with golfer in center of table.

Residual Insecticide Sprays... *up to date*

By Dr. J. E. Bussart*
Velsicol Chemical Corp.
Chicago, Ill.

DURING the past few years there has been considerable development in pressurized insecticide solutions to be applied with the residual spray type dispenser unit. The value of this dispenser is to regulate the application of insecticides to surfaces in order to leave a residual type deposit. This type of deposit is usually applied to floors, baseboards, clothing and other surfaces where insects may crawl or come in contact with the deposit.

The formulation is a solution containing an insecticide dissolved in oil, water, or other suitable solvents—plus the liquefied gas. These insecticide solutions, often called "non-volatile," are combined with liquefied propellants, often called "volatiles," which are held under pressure in a metal container. All of the volatiles or propellants used in this type of dispenser should be non-flammable, non-explosive, non-irritating, of low order of toxicity, colorless, and essentially odorless. Propellants commonly used are propellant 11 (trichloromonofluoromethane), propellant 12 (dichloro difluoro methane) and certain hydrocarbons, such as propane. Propellant 12 may be used alone or in various proportions with propellant 11 or other propellants.

Several insecticides have been used in the control of various household insects with pressurized type dispensers applying a residual type spray. Some of the materials, listing the maximum allowable concentrations, are:

Chlordane (spot application)	3%
DDT (general treatment)	6%
Dieldrin (spot application)	0.5%
Diazinon (spot application)	0.5%
Dilan (general application)	3%
Heptachlor (spot application)	0.5%
Lindane (spot application)	.5%
Malathion (general treatment)	2%
Malathion (spot application)	5%
Methoxychlor	6%
Ronnel (general treatment)	2%
Ronnel (spot application)	5%
TDE (general treatment)	6%
Toxaphene (spot application)	6%

Repellent Additives

MKG R-11 (spot application)	5%
Tabatrex (spot application)	5%

Other products containing materials such as dicapthon and others have been used, but this use is currently restricted to professional applications by pest control operators or public health officials.

These pressurized type dispensers frequently contain a combination of pesticidal ingredients together with synergized pyrethrins and thiocyanates. Some combinations may be used that require the concentration of these ingredients to be proportionately reduced. Regardless of concentration of the materials formulated alone or in combinations, it is required that they produce a *residual* deposit to give effective insect control on all treated surfaces.

Labels on residual spray dispensers should give adequate directions for use against all of the insects named. These products are commonly recommended for the control of many household insect pests such as roaches (water bugs), silverfish, ants, carpet beetles, spiders, centipedes, fleas, brown dog ticks, scorpions, bed bugs, houseflies, wasps and mosquitoes. Many of these pressurized products *do not* have label acceptance for mist spray applications, hence care should be taken to apply these as coarse wet sprays. Labeling should also emphasize the need for repeated applications as often as necessary since residual effectiveness will be governed by the types of surface to be treated as well as the cleaning of treated surfaces.

Label directions on pressurized residual spray dispensers for use for control of specific insects must be in agreement with label directions found on liquid household spray formulations. The specific directions for use for the control of certain insects are:

(a) *Roaches (Water Bugs), Ants, and Silverfish.* Thoroughly spray cracks and hidden surfaces around sinks or food storage areas where these insects may be hiding. Also, spray around baseboards, windows, door frames, bookcases and storage areas where these insects may crawl. Repeat application if necessary. Special care should be taken to avoid contamination of food or food utensils.

(b) *Carpet Beetles.* Apply a thorough spray along baseboards, edges of carpeting, under furniture and to infested areas of carpets where these pests are found. The directions shall also

(*Continued on Page* 74)

*Presented at the 47th mid-year meeting of the Chemical Specialties Manufacturers Association, Drake Hotel, Chicago, May 15-17, 1961.

NEW VALVE-CAP COMBINATION DEVELOPED FOR AEROSOL ANTI-PERSPIRANTS

WHAT is described as a "major breakthrough" in the packaging of aerosol antiperspirants has just been announced by Risdon Manufacturing Co., Naugatuck, Conn. Risdon researchers, led by Walter C. Beard, Jr., research director, have developed a non-metallic valve and a self-sealing cap which acts as a "cork" for the aerosol package between uses.

This system, Risdon points out, solves the problem that has heretofore plagued the packaging of anti-perspirants in spray dispensers — the crystallization of aluminum salts vital to virtually all anti-perspirants and the subsequent clogging of the valve. The new cork-type cap minimizes this clogging.

The valve and closure have been designed for use with all containers — glass, aluminum, stainless steel, plastic — having openings 20 mm or one-inch in diameter. Metal containers for aluminum salt based formulations would have to be protected against corrosion to insure satisfactory performance.

The potential market and demand for this packaging system appear to be considerable, according to Donald S. Tuttle, Jr., Risdon vice-president. In 1959, consumers spent $95.2 million on more than 93 million packages of all kinds of deodorants and anti-perspirants. The ease of applying an aerosol-packaged spray, compared with some of the conventional forms, makes the spray package particularly desirable for underarm use, Mr. Tuttle said. Creams, liquids, squeeze bottles, sticks, roll-ons and pads are some of the forms in which anti-perspirants and deodorants are now available.

The new Risdon "Seal Dome" closure creates a double seal to prevent the aluminum salts from drying up and clogging the valve and actuator. From the outside, the ribbed, plastic cap looks like any other. The inside, however, is specially constructed to provide the sealing action. The cap's interior: 1) is tapered to seal against the sides of the vertical toggle-type "Micro-Mist" mechanical breakup actuator; 2) has a projection at the top which fits into the terminal orifice of the actuator and seals it from the air. 3) has ribs along the inner sides of the cap, which create a snap fit and cause it to grip the valve cup. The combined action of the cap's interior features creates a "cork action" which prevents air from reaching the actuator's orifice when the package is not in use. Since the actuator is the toggle-type which can be actuated only by pressing the side, it cannot be moved accidentally when the cap is put into place.

The "Vapor Mix" valve has no metal parts, eliminating the possibility of valve corrosion. Its design is said not only to produce a superior spray, but also reduce the "chill" that is sometimes associated with aerosols. The valve has two tiny channels (on either side of the nylon valve cup) which allow a minute amount of propellant to enter the dip tube at the top. When the actuator is pressed, this added propellant in vapor form mixes with the liquefied solution of product and propellant that is forced up through the dip tube in the normal way. The addi-

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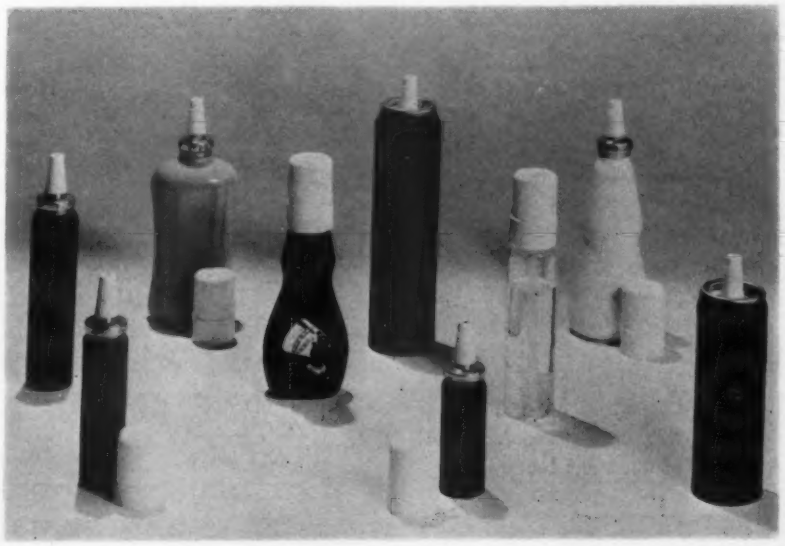

Non-metallic valve and self-sealing cap may be used with a wide variety of containers, ranging from coated and uncoated glass to one-piece aluminum units.

analysis of hair spray market is published by

Redbook Magazine

WHAT is probably the most comprehensive consumer study of aerosol hair sprays is included in the recently released "Market Report on Women's Hair Grooming and Treatment Preparations," prepared by the market research department of *Redbook Magazine*, 230 Park Ave., New York 17. The report is comprehensive not only from the standpoint of consumer reaction and purchase of hair sprays, but it includes as complete a marketing history of these products as has been seen in print.

Possibly as interesting as the statistical market data offered are a number of conclusions about the relationship of the hair spray to the rest of the hair grooming field:

1. "The hair grooming industry is characterized by companies that market only one hair grooming preparation, other than shampoos, tints, or home permanents. This frequently is an aerosol styling or holding spray." In this category the report lists Max Factor, Elizabeth Arden, Hazel Bishop, Coty, Shulton, and Bourjois.

2. "Sprays packed in small metal aerosols, containing six ounces or less, have declined in popularity while large-size sprays (containing more than 12 and up to 16 ounces) have become more popular. The share of total production contributed by the first-mentioned dropped from the 60% level in 1955-56 to 39% in 1959, while production of the large size went from a negligible amount to 28%.

3. "At their largest (1956), hair sprays packaged in glass bottles counted for only 6% of reported production and since 1957 have not been reported separately (in CSMA aerosol surveys).

4. "Hair sprays costing between $1.25 and $1.50 are most popular, according to *Chain Store Age* (May 1958), and account for 45% of all sales. Sprays priced from 69 cents to $1 were said to produce 30% of total volume and those costing $1.69 and more the remaining 25%.

5. "Climatic and hence geographic conditions affect the sale of hair sprays, with the more humid southern areas apt to sell more of the fixative type. Sales also vary seasonally. *Chain Store Age* data (issues of May and June 1960) shows that 22.0% of hair spray volume in food chains is

TABLE I

PER CENT BUYING HAIR SPRAYS IN PRESSURIZED CANS

City	1960	1959	1958	1957	1956
	%	%	%	%	%
Chicago	48.5	46.3	43.9	42.3	32.5
Cincinnati	a	a	43.9	40.3	33.9
Columbus	39.6	39.5	42.3	34.7	29.0
Denver	41.0	41.1	38.3	33.1	a
Duluth-Superior	44.8	43.8	40.5	38.7	28.6
Fresno	61.5	55.7	49.5	44.4	36.7
Honolulu	42.8	39.9	42.2	40.9	32.2
Indianapolis	42.2	42.1	38.0	36.7	28.7
Long Beach	59.2	57.4	55.5	49.1	41.2
Milwaukee	40.7	42.5	37.6	38.0	28.6
Modesto	50.4	52.9	44.7	42.2	29.0
Newark	46.9	44.8	46.1	42.3	35.8
Omaha	42.7	42.5	35.7	33.1	28.1
Phoenix	49.4	43.5	41.7	39.1	28.7
Portland, Maine	a	a	a	29.9	27.8
Portland, Oregon	47.9	45.7	42.2	38.5	29.3
Providence	34.9	a	a	a	a
Sacramento	51.1	50.9	44.7	38.3	26.4
Salt Lake City	56.6	53.0	44.1	43.5	28.7
San Jose	51.0	52.4	47.9	45.3	31.1
Seattle	47.9	41.9	43.6	38.0	28.9
St. Paul	40.7	39.4	35.9	31.4	24.1
Washington	a	36.0	34.4	31.2	27.0
Wichita	55.5	50.5	49.7	43.5	a

[a] No survey this year.

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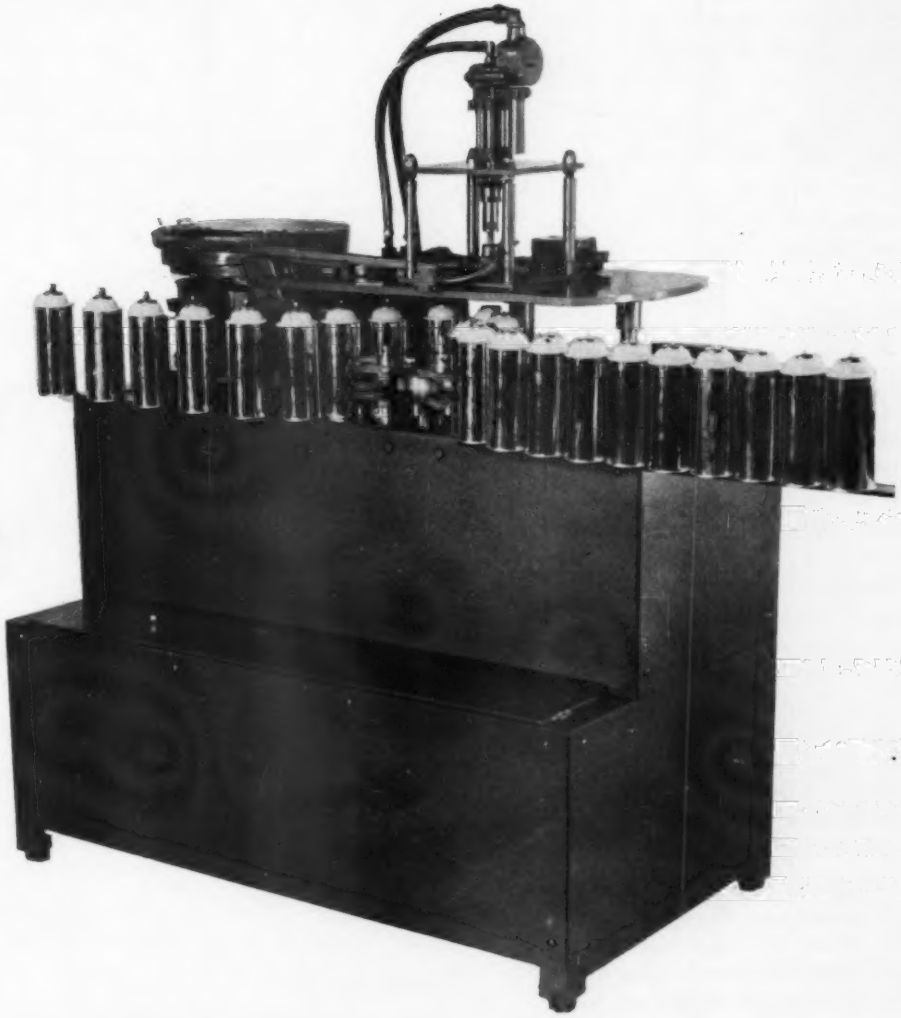

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transacted during the first quarter of the year, 27.4% in the second quarter, 27.1% in the third quarter, and 23.5% during the last three months. In variety chains the peak months were said to be May, June, July and August."

The question of which are the largest selling brands of hair spray come up repeatedly in the *Redbook* report. *Chain Store Age* is quoted as saying that five or six brands dominate the hair spray field, with four, led by Revlon and Helene Curtis, producing most of the business. *Advertising Age* is quoted as reporting (Aug. 29, 1960) that Revlon and Curtis are closely competing for leadership, with the two sharing about half the total market.

THE report goes into considerable detail about marketing outlets. It is pointed out that a 1957 check of drug stores found that close to half generally stocked from six to 10 brands of hair spray. "However, in the last few years drug stores may have cut down on the number of brands of women's hair grooming products that they carry. An analysis of the toiletries departments of a 35-store drug chain made by *Chain Store Age* (reported in the June 1960 issue) found that these stores handled fewer hair sprays in 1960 than in 1957; the number of brands carried dropped from 14 to 12 and the number of items in these brands from 46 to 41."

Evidence of how often women in the homes make hair spray purchases is offered by data gathered from two separate surveys: The DuPont "1958 National Survey of Aerosol Products Purchased for Home Use," and *McCall's* 1956 "Drugs and Toiletries Purchase Study." The DuPont survey indicated that 86% of the purchases were made by housewives, 6% by their daughters, 4% men, and 2% other persons in their households. The *McCall's* study indicated that women family members bought 96.6% of the spray hair fixatives purchased by families in the survey. This same study, incidentally, reported that 16.5% of spray hair fixatives were "impulse" sales. It also indicated that drug stores continue to be the prime source of sale for hair sprays, 51.0% of the respondents reporting that their last purchase was in a drug store as against 22.3% in food stores and 5.3% in department stores.

TABLE II

City or Area	1959	1958	1957
	FIRST-RANKING BRAND OF HAIR SPRAY		
Akron	a	Helene Curtis	Helene Curtis
Charlotte	Revlon	Revlon	a
Cincinnatti	Helene Curtis	Helene Curtis	a
Dallas	Revlon	Helene Curtis	Revlon
Houston	a	Helene Curtis	Helene Curtis
Los Angeles County	Revlon	Revlon	Revlon
Miami	Revlon	Revlon	Revlon
New Castle County, Del.	Revlon	Helene Curtis	Helene Curtis
Portland, Oregon	Revlon	Revlon	a
Toledo	Helene Curtis	Helene Curtis	Revlon
Youngstown	Helene Curtis	Helene Curtis	a
	SECOND-RANKING BRAND OF HAIR SPRAY		
Akron	a	Revlon	Revlon
Charlotte	Helene Curtis	Helene Curtis	a
Cincinnati	Revlon	Revlon	a
		Max Factor	
Dallas	Helene Curtis	Revlon	Helene Curtis
Houston	a	Revlon	Revlon
Los Angeles County	Helene Curtis	Helene Curtis	Helene Curtis
Miami	Helene Curtis	Helene Curtis	Helene Curtis
New Castle County, Del.	Toni	Revlon	Revlon
Portland, Oregon	Toni	Helene Curtis	a
Toledo	Revlon	Revlon	Helene Curtis
Youngstown	Revlon	Revlon	a

[a] No survey this year or product not survey in this market.

TABLE III

City	1960	1959	1958	1957	1956
	FIRST-RANKING BRAND OF HAIR SPRAY				
Chicago	H. Curtis	H. Curtis	H. Curtis	H. Curtis	H. Curtis
Cincinnati	a	H. Curtis	Revlon	H. Curtis	H. Curtis
Columbus	Revlon	a	Revlon	H. Curtis	H. Curtis
	H. Curtis	H. Curtis			
Denver	Revlon		Revlon	Revlon	a
Duluth-Superior	Revlon	Revlon	Revlon	Revlon	H. Curtis
Fresno	Revlon	Revlon	Revlon	H. Curtis	H. Curtis
Honolulu	H. Curtis	Revlon	H. Curtis	H. Curtis	H. Curtis
Indianapolis	Revlon	H. Curtis	Revlon	Revlon	Revlon
Long Beach	Revlon	Revlon	Revlon	Revlon	H. Curtis
	H. Curtis	Revlon			
Milwaukee	H. Curtis		H. Curtis	H. Curtis	H. Curtis
Modesto	Revlon	H. Curtis	Revlon	Revlon	H. Curtis
Newark	Revlon	Revlon	Revlon	Revlon	H. Curtis
Omaha	H. Curtis	Revlon	H. Curtis	H. Curtis	H. Curtis
Phoenix	Revlon	H. Curtis	Revlon	Revlon	H. Curtis
Portland, Ma.	a	Revlon	a	H. Curtis	H. Curtis
Portland, Ore.	H. Curtis	a	Revlon	Revlon	Revlon
Providence	H. Curtis	Revlon	a	a	a
	Breck	a			
Sacramento	Revlon		Revlon	Revlon	Revlon
Salt Lake City	H. Curtis	Revlon	H. Curtis	H. Curtis	H. Curtis
San Jose	H. Curtis	H. Curtis	Revlon	Revlon	H. Curtis
Seattle	Revlon	Revlon	Revlon	Revlon	H. Curtis
St. Paul	H. Curtis	Revlon	H. Curtis	H. Curtis	H. Curtis
Washington	a	Revlon	Revlon	Revlon	H. Curtis
Wichita	H. Curtis	Revlon	Revlon	Revlon	a

[a] No survey this year.

A real service performed by the *Redbook* study is a consolidation of newspaper surveys of consumer buying habits conducted from 1956 to 1960 in 24 cities. The 18 newspapers participating in the five surveys included the *Chicago Daily News* & *Sun Times; Columbus Dispatch* & *Citizen Journal; Duluth Herald* &

(*Continued on Page* 77)

INTRODUCING: WHITE LILAC SUPREME...

....AND THE TWENTY-THREE INGREDIENTS THAT COMPOSE IT

This fragrance is a classic example of what the creative perfumer can accomplish, given the attributes of experience, scientific knowledge, imagination and—last but not least—the fine, basic materials with which to work. WHITE LILAC SUPREME is a floral composition distinguished not only for the beauty, fidelity and tenacity of its fragrance, but also for its amazingly low cost. It is truly an outstanding achievement in perfume synthesis. Now the building blocks of this floral specialty can be readily identified by reference to the numbered diagram shown on the back of this insert. What cannot be shown are the precisely measured fractions of each of these ingredients as evolved in the development of this compound and as specified in its formula. Obviously, it is these minuscule details that determine the character and perfection of the finished product. It is also this fact that strengthens our own long-held belief in the importance of quality, purity and uniformity as minimal criteria for the selection of *all* materials used in the manufacture of extracts, toiletries and cosmetics. That is why *utmost dependability of its basic materials* has always been held paramount in the processing and production of FRITZSCHE products.

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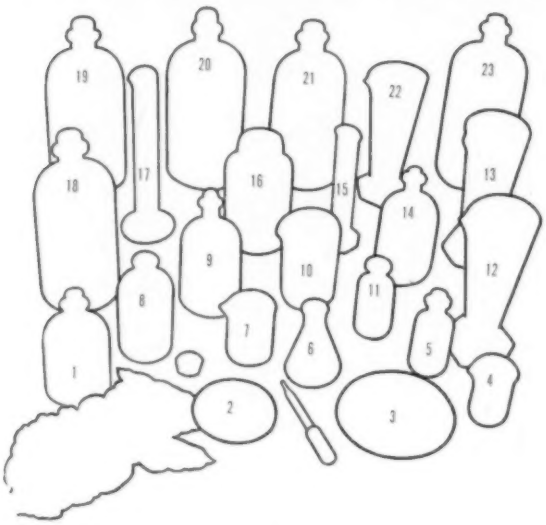

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5. **OIL ROSE USP KAZANLIK EXTRA**—Exclusive source of supply.
6. **CINNAMIC ALCOHOL**—Clifton produced synthetic.
7. **HYDROXY-CITRONELLAL EXTRA**—Clifton produced synthetic.
8. **TERPINEOL ABSOLUTE**—Isolated by Clifton process.
9. **AMYLCINNAMIC ALDEHYDE** — Commercially available synthetic.
10. **RHOSIDOL No. 32589**—F.B. specialty.
11. **ANISIC ALDEHYDE**—Commercially available synthetic.
12. **FRITZBRO® SYNTHETIC FLOWER OIL HELIOTROPE**—F.B. specialty.
13. **FRITZBRO® SYNTHETIC FLOWER OIL NEROLI**—F.B. specialty.
14. **ISOEUGENOL METHYL ETHER**—Clifton produced synthetic.
15. **NEROLIDOL SYNTHETIC**—Commercially available synthetic.
16. **MUSK KETONE**—Commercially available synthetic.
17. **GERANIOL EXTRA**—Isolated by Clifton process.
18. **PHENYLETHYL ALCOHOL N.F.**—Commercially available synthetic.
19. **CYCLAMEN ALDEHYDE**—Commercially available synthetic.
20. **EUGENOL USP EXTRA**—Isolated by Clifton process.
21. **BENZYL ACETATE**—Commercially available synthetic.
22. **FRITZBRO® SYNTHETIC FLOWER OIL JASMINE EXTRA FINE**—F.B. specialty.
23. **laevo-LINALOOL F.B.**—Isolated by Clifton process.

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MANUFACTURERS AND SUPPLIERS OF ESSENTIAL OILS, AROMATIC CHEMICALS, BASIC PERFUME AND FLAVOR RAW MATERIALS

Spring Alive Styling Spray is a new hair spray exclusively for the professional beauty trade. Marketed by The Realistic Co., Cincinnati, a subsidiary of Revlon, it is filled by Peterson Filling and Packaging Co., Danville, Ill. Litho foil label has gold background.

Pretty Kitty is the name of a new line of aerosol colognes just introduced by Rexall Drug Co., Los Angeles. Fragrances include **Siamese Mist** (oriental), **Angora Mist** (sophisticated), **Tabby** (light floral) and **Lynx** (woodsy). Pastel-tinted coated bottles are supplied by Owens-Illinois Glass Co., with caps by Metal Fabrications and valves by Risdon Mfg. Co.

Two new products of Stanley Tools Division of The Stanley Works, New Britain, Conn. are **Spray Adhesive** and **Brush Softener and Protector.** Each retailing at $1.39, they are being marketed in hardware stores. The brush softener is applied to stiff brushes, which are then wrapped in foil and allowed to stand for a few days.

NEW PRODUCTS AND PACKAGES

Blanchard Perfumes, New York, has introduced its **Intrigue** in a 2-ounce Peerless Tube with aluminum collar and overcap by Metal Fabrications. Mechanical break-up button and B9-FG valve are by V.C.A., Inc.

Pharmaceutical Industry is Still in Need of More Aerosol Information

THERE is a definite need for dissemination of *more* aerosol information to both the general public and the drug industry, if the aerosol is ever to achieve its deserved place in the pharmaceutical industry. This is one of several significant conclusions in a ten-page aerosol survey of the drug field just completed by the Packaging Institute * at the request of Peerless Tube Co., Bloomfield, N. J., a leading supplier of aluminum aerosol containers. Approximately 100 pharmaceutical firms were polled by the Packaging Institute for their opinions on current aerosol pharmaceutical packaging and the potential for other products in this field.

The survey drew 23 replies, 18 from pharmaceutical firms and the rest from propellant manufacturers and custom fillers. Despite the relatively small number of respondents (which is attributed partly to the fact that only relatively few firms have sufficient aerosol experience to offer qualified answers to the questions) Peerless termed as highly significant that the responses included 13 of the major "pharmaceutical houses" who produce most of the aerosol drug volume.

One part of the survey contained questions on aerosol components (not including propellants) and the other on the general aspects of aerosols for pharmaceuticals. Since Peerless Tube's primary interest lies in the field of containers, there were several questions on this subject.

A question about which type of new container the respondent would like to see made available drew a mixed bag of replies. One manufacturer asked for a "material that is non-magnetic, non-corrosive, non-breakable, with a mirror-like finish and cheaper than stainless steel." This somewhat fanciful request was tallied along with a more reasonable one for a metal "which could be made in almost any shape and size," and an even more practical request for containers in the 15 cc. size. Tinplate can manufacturers were requested to make available aerosol cans in the 1, 2, and 3-ounce sizes.

Ten of the respondents listed can "cleanliness" as a problem. Eight reported using no internal liners, while seven others use epoxies, phenolics, and vinyls. External coatings, usually PVC on glass or lacquer on metals, are used by 12 of the companies. On a question about labels there seemed to be a slight numerical preference for paper labeling, though most of the drug companies sell their products in both types of containers. On quality control in container manufacture, eight said it was inadequate. Most of the companies reported they specify neck tolerances ranging between plus or minus .002 to .005 inches.

Specific container complaints included side seam failure, difficulties with seaming compounds, difficulties with lithographing the three-piece can, and container prices. Twelve of the respondents expressed dissatisfaction about high container prices and one singled out coated glass.

VALVES also came in for specific criticism from the companies answering the survey. Six replied negatively to the question: "Are present valves able to apply product sufficiently evenly?" Thirteen gave valve clogging as a problem, though three admitted to powders as a cause of this. Three others said they had valve leakage problems.

Metering valves were criticized by eight as being not accurate enough, with one suggestion recorded that they be accurate to plus or minus 10%. There was some confidence expressed in metering devices for body orifice application, since only four found them unsafe for this use. On the same subject, there was a positive vote of 15 to the question: "Is there a potential for metered valves that could be adjusted according to a medical prescription?"

Eight of the respondents termed valve prices too high, but one specifying metering valves seemed to indicate that these replies might have meant this type of valve.

Desire for closer quality control

(*Continued on Page* 73)

* The Institute has a policy of conducting Advisory Service Report surveys for its corporate members on any subject which it feels will benefit the packaging industry. Copies of the tabulated medical aerosol survey report, designated ASR-351, are available from the Packaging Institute, 342 Madison Avenue, New York 17, N. Y., at a charge of $2 for members, $4 for non-members.

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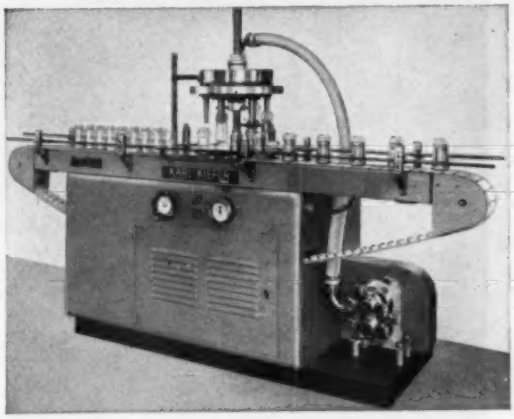
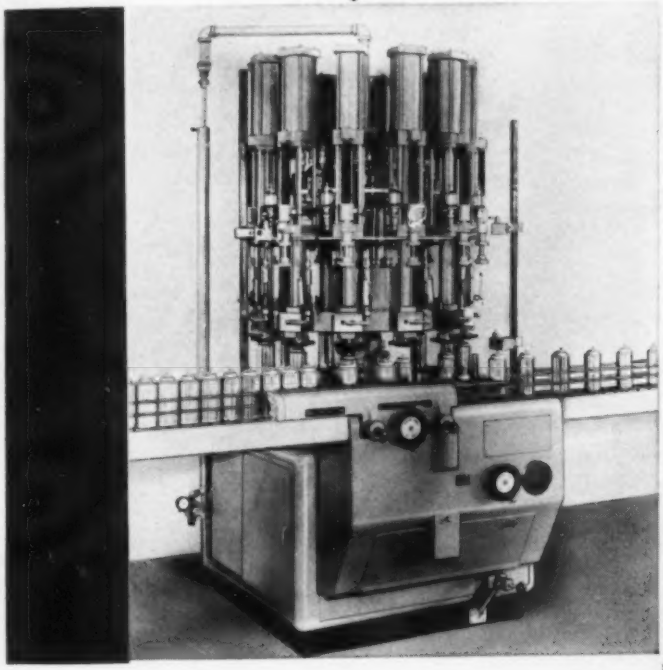


CADET VARI-VISCO FOR PRODUCT FILLING



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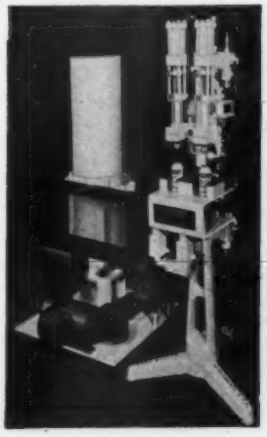

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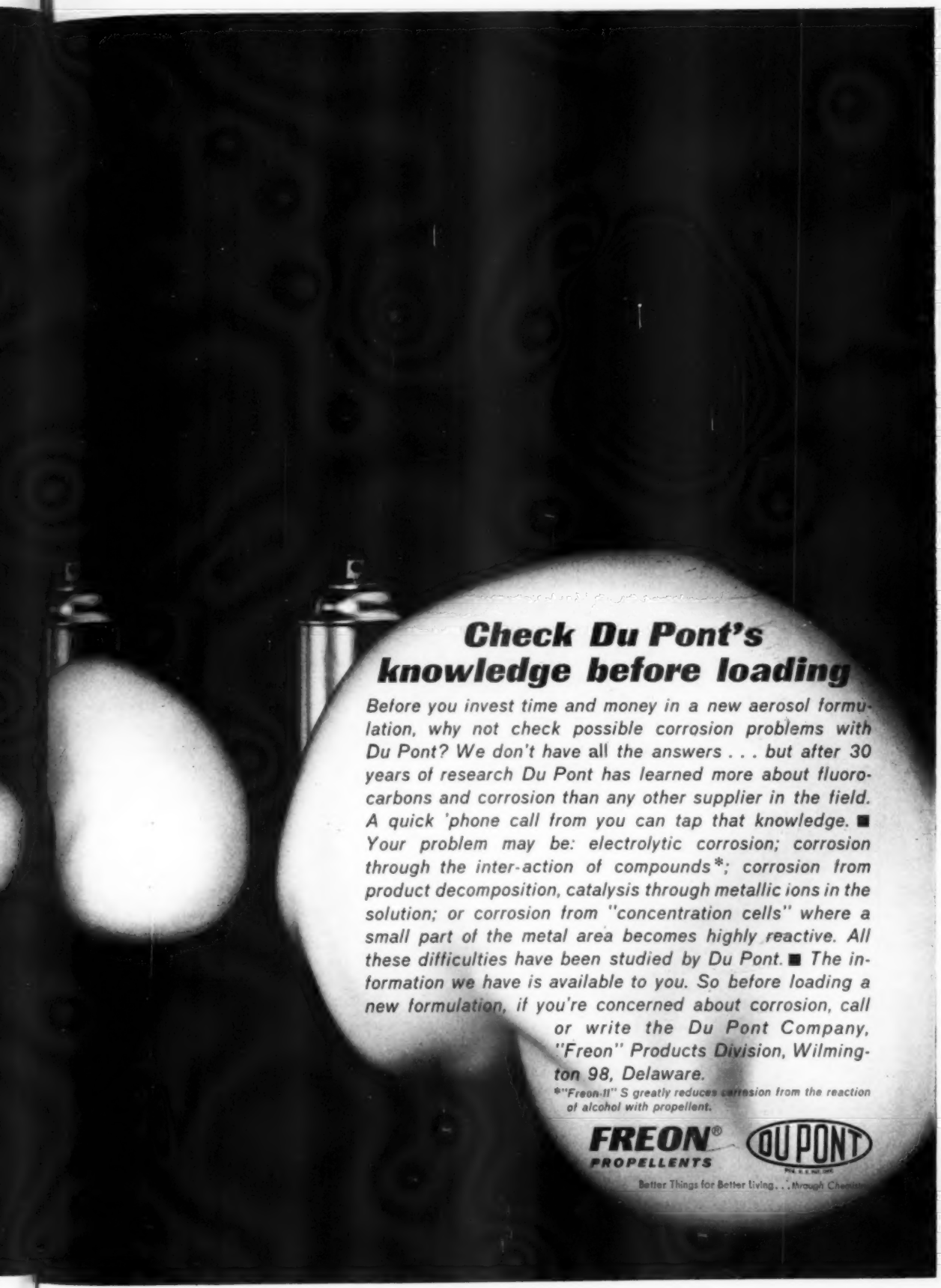
Corrosive formulation?


Check Du Pont's knowledge before loading
Before you invest time and money in a new aerosol formulation, why not check possible corrosion problems with Du Pont? We don't have all the answers . . . but after 30 years of research Du Pont has learned more about fluorocarbons and corrosion than any other supplier in the field. A quick 'phone call from you can tap that knowledge. ■ Your problem may be: electrolytic corrosion; corrosion through the inter-action of compounds*; corrosion from product decomposition, catalysis through metallic ions in the solution; or corrosion from "concentration cells" where a small part of the metal area becomes highly reactive. All these difficulties have been studied by Du Pont. ■ The information we have is available to you. So before loading a new formulation, if you're concerned about corrosion, call or write the Du Pont Company, "Freon" Products Division, Wilmington 98, Delaware.
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A New Valve for Paints and Water-Base Products

By S. Kitabayashi
Vice-President
Maruichi Manufacturing Co.
Tokyo, Japan

EVER since the development of the aerosol, dispensing of paints and water-based products has been a problem. Over the past ten years the author has been engaged in considerable research on this problem, and during that period has evolved a number of valve designs which appear to offer a solution.

It is a basic fact that correlation between propellant and product play the essential role in spray, but for the most part chemical work in this area has been left to the worthy efforts of propellant manufacturers. The work which brought about the valves pictured below was aimed at solving the *mechanical* aspects of the problem through improvement of the valve and actuator button.

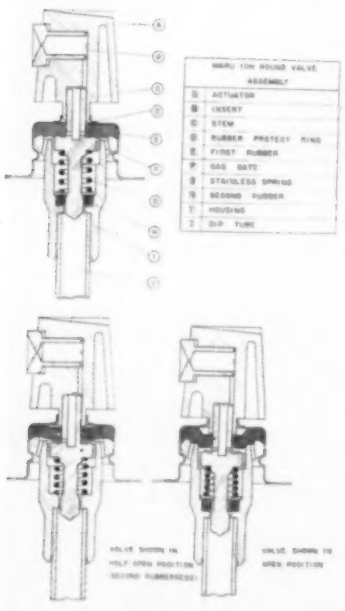


Figure I

Before and after dispensing product, this valve permits propellant alone to jet out so that product residue will be cleared each time. This characteristic of valve is its chief asset.

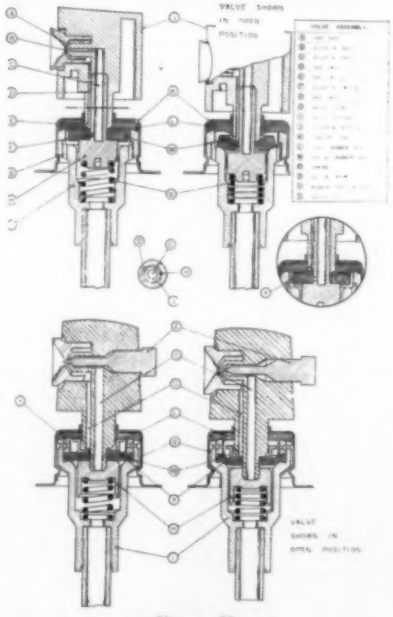


Figure II

This valve is for water-based products not miscible with propellant. It has two separated induction openings for the product and propellant to go separately to the actuaor, where they are discharged together as a mist.

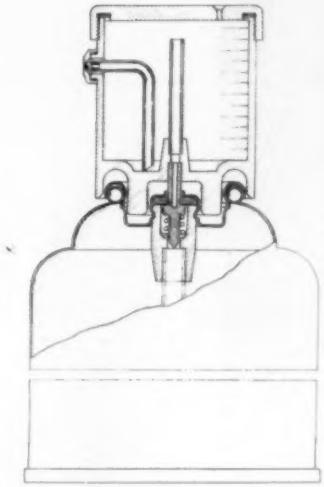


Figure III—In combination with a chambered actuator, this valve is designed for spraying drugs and other water-based products. It may also be used to spray a mixture of ingredients.

The most significant aspect of this work is that despite the fact that propellant and product are filled and sealed into the aerosol can in the conventional method, when the spray is actuated, product, and propellant are made to dispense separately out of the same spray nozzle (see Figures 1, 2, and 3). This approach has proven

(*Continued on Page* 69)

AEROSOLS in review

A summary of aerosol articles in other publications

THE aerosol is not the most economical means of mothproofing any large areas of cloth, though it *is* the most convenient. This is the conclusion of the June issue of *Which?*, a publication of the British Consumers' Association, which concludes that generally the hand sprayer is cheaper to use.

The report is a follow-up to a similar piece published in June of 1960, and it repeats the previous criticism that application instructions on aerosols are usually inadequate. "For the proper use of a household mothproofer," the article points out, "it is essential to know the distance at which the nozzle of the aerosol or pump should be held from the textiles that are being proofed, and the spraying time (for the aerosols) or quantity (for liquids used in pumps) for any given area. If the instructions do not mention these points, then it is quite easy for the user either to apply too little mothproofer, and so not fully protect the clothers, or too much, and waste money."

Most of the criticism of *Which?* was directed at one British brand of aerosol mothproofer, tradenamed "Mothdoom" (marketed by David Reid). Cloth treated with this product, the magazine says, was "severely damaged by moth larvae—in fact it was only slightly less badly attacked than the untreated cloth. Analysis showed that the active ingredient in 'Mothdoom' was paradichlorobenzene. This substance is normally used as a *moth fumigant*—it gives off a vapor which, especially in confined spaces, kills moths or keeps them away. But paradichlorobenzene is not now normally used as a *mothproofer*, which impregnate the material and give more lasting effects. 'Mothdoom' is described on the label as a moth preventive, and the instructions for use give the impression it *is* intended to be a mothproofer. As a mothproofer, however, it is ineffective."

In its summary, "Wright's" product was judged to be the cheapest (about a penny a square yard), but "Max", "Flit" and "Cooper's" were cheaper than average. Max" was judged to be the best buy among the aerosols.

•

THE well-thrashed-out question of whether pulmonary thesaurosis, possibly due to inhalation of aerosol hair sprays, may be considered a definitely established clinical entity is still a "live" subject in the medical journals, reports the July issue of *Drug & Cosmetic Industry*. The new flurry of scientific skirmishing was initiated by an editorial in the *Journal of the American Medical Association* for Nov. 5, 1960 which concluded that pulmonary thesaurosis *is* an established clinical entity.

Dr. Matthew J. Brummer, of Los Angeles, (in *J.A.M.A.*, 105, 1961) takes exception to this, pointing out that "discrepancies in Bergmann's work, along with the dearth of human cases in spite of massive consumer use and the negative results of experimental evaluation" would tend to disprove anything but the conclusion that ordinary use of hair sprays "poses no problem of safety to users."

Dr. Bergmann, who started the whole thing in the *New England Medical Journal* (1958) argues that

Household Mothproofers

Product	*Net wt. (oz)*	*Price sh. and d.*	*Application distance* (in.)*	*Spraying time per sq. yd. (sec.)*	*Dose per sq. yd (grams)*	*Area of cloth covered by can (sq. yds.)*	*Cost per sq. yd. (d.)*	*Effectiveness*
AEROSOLS								
Airwick	5	3 9	12†	(10)†	6.4	14	3.5	Good
Cooper's	5	3 9	15-20	(10)	1.8	20	2.25	Good
Flit	5	3 9	18-24	12	3.4	21	2.2	Good
Max	5	2 11	24	(10)	2.7	20.5	1.7	Good
Mothdoom	6	4 3	(20)	(10)	3.7	18.5	3.2	Poor
Pomp	9	6 0	18-25	(10)	7.2	27	2.9	Good
Secto	5	3 9	(20)‡	15	10.0	8	4.0	Good
Wright's	5	3 9	24	5	0.7	45	1.0	Fair/Good**
LIQUID								
Cooper's	10	3 0	12	(10)	4.0	90	0.4	Good

* Where no instructions were given, the distance or time used in CA's tests is given in brackets.
‡ The manufacturer say that application distance is now given as 18 inches, and spraying time as 1 ft. per sec.
† The manufacturer says that as a result of our previous report instructions will shortly mention an application distance of 15-18 inches
** Good in tests up to six months after application; fair in test after nine months.

his studies satisfy him that there *is* such an entity. He slashes out at Draize and the other FDA researchers with the suggestion that "perhaps it was a shortcoming (an unawareness of current concepts of etiology of both these syndromes) which prompted the authors to publish it in the journal of the Toilet Goods Association instead of a reputable medical periodical!"

Dr. Bergmann, in his letter to the *J.A.M.A.*, reports that since the publication of his original paper, he has encountered 12 additional cases, including three studied at autopsy. *Drug and Cosmetic Industry* is critical of this: "Shouldn't these cases be published in a reputable medical periodical, and is it proper to refer to autopsy without indicating the cause of death. Heated correspondence is fun, but let us not confuse it with scientific objectivity."

•

A MAJOR publicity coup was scored in June by Pressure Pak, Inc., West Palm Baech, Fla. aerosol equipment manufacturer with the publication of a four-page article in the June issue of *Popular Mechanics Magazine*. The article, titled "Load Your Own Aerosols" describes in detail the laboratory formulation kit developed by Pressure Pak for the "aerosol amateur". It also gives general details about how to use the kit to formulate pressurized paints, space and residual insecticides, and shaving cream.

One good feature of the kit (which, incidentally costs $37.50 at retail) is that it offers a pressure gauge for establishing safe pressure in the containers. The *Popular Mechanics* article is well written from the standpoint of background on aerosol principles it provides the reader.

•

THE AEROSOL foam contraceptive developed by Emko Co., St. Louis, is currently being used by 22,000 in Puerto Rico, a report in the *Journal of the American Medical Association* (177:125, 1961) reveals. Results of specific tests are reported

(*Continued on Page* 69)

THE SAMPLE SHELF

By Jerome N. Michell
vice president
The Walter Frank Organization
Hillside, Ill.

WAY back in the dark ages of the aerosol industry, to be more specific in 1950, when Continental Can was just getting over the throes and woes of the built-in aerosol valve, and Sun Tube was promoting extruded aluminum aeeosol containers, two aerosol colognes were introduced to the American public.

The brash young man who dared to stray for the insecticide, room deodorant, paint domain that constituted virtually 100% of the market at that time was George Barr, now head of one of the largest aerosol formulating and filling companies in the country. Mr. Barr lost his shirt on those two colognes, and fortunately had just enough left (after making good on the thousands upon thousands of cans that were returned for various valid reasons), to stick it out and prosper in the aerosol field.

But this is a column on design—and the foregoing is but introduction to the main point. The two colognes were "Soft Answer" and "Happy Talk," both pictured here. These were brought out more than 11 years ago as virtually the first of their kind in an exciting new field.

The designs were pleasing, the colors, we recall, were also attractive—feminine pale pink on one, and a deeper shocking pink on the other—but the containers were not much different than many of today's aerosols in size and shape!

Compare the appearance between the first model or package of any other product you can think of, and its current appearance— the changes are so startling from a design standpoint as to be almost amusing. They make us realize how far we have come in automobiles, boats, appliances, radios, food and household packaging, soft goods, hardware—all have changed drastically. The prototypes were incredibly old-fashioned by today's design standards. There is an amazing percentage of products on the market today that were non-existent 10 years ago,, and we hear of the revolution that is coming in the next decade in both product and packaging and design.

But what about aerosols! Oh, enormous strides have been made in formulation, in valves, in sheer chemical know-how, and vast progress will continue to be shown in new products and applications and engineering techniques.

But look again at the photograph of two of the very first colognes. These were more than just failures. They almost *had to fail* because the consumer was not then ready for aerosols—in fact had a distrust of them. But someone had to make and market the first ones—someone always does. Even today, with a public conditioned to the use of aerosols, with colognes in glass and even metal so commonplace, almost no one is willing to pioneer, to change, to imagine how really clever an aerosol package could be.

So again we point out that aerosols lag in pure design progress. Here and there good things are seen, but not enough of them. Far too many marketers are too willing to use the same shapes and forms that prevailed at the birth of the industry, because these are easily available.

Anybody feel stimulated? Anybody want to try? ☆

It'll snow for sure this winter...

ORIGINAL
MAKE IT SNOW
PUSH-BUTTON MAGIC FLAKES FOR HOLIDAY DECORATING
SPRAY YOUR OWN TREES · GIFT PACKAGE
WINDOWS · WREATHES · ORNAMENTS · DISPLAY

Thanks to BOYLE-MIDWAY, and an assist by VCA

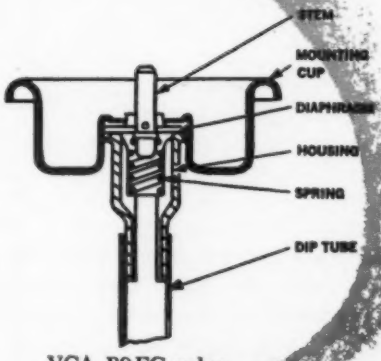
All sales barometers point to a tremendous demand for Boyle-Midway's new push button magic flakes, this year.

No wonder! "Make it Snow" aerosols are easy to use and thoroughly tested. The 'snow' stays put, once it is sprayed on.

No wonder! The B9FG valve is a VCA, as is 'star' opening button, for positive delivery of the varied shaped flakes.

"Make it Snow" is just another example of how progressive brand name product manufacturers look to, and depend upon VCA for technical assistance, cooperation and top quality valves for high quality, profitable push button spray products. They know VCA valves will do the job, better . . . naturally.

If you have a spray product problem, you'll be wise to call in VCA, too. Phone or write today for technical assistance, application data sheets, valve prices and samples.



VCA B9FG valve

[redacted]

CSMA

VALVE CORPORATION OF AMERICA, Inc.
1720 Fairfield Ave. • Bridgeport, Conn.

WHO
PUT
THAT
ETHYL ALCOHOL
DRUM
THERE?

YOU put it there, of course. Though it may not concern the youngster's mother, the tincture she's spraying—like many other pharmaceuticals in her medicine chest—very likely is formulated with ethyl alcohol bearing the U.S.I. label.

YOU put it there because your reputation is at stake every time she presses the valve on your product. You know your aerosol is only as good as the raw materials that go into it. So you specify alcohol of assured quality—U.S.I. pure anhydrous ethyl alcohol—for assured purity and absolute dryness in such aerosol formulations as tincture of methiolate, spray-on bandages, inhalants, nasal sprays, throat sprays, cough syrups. It's the brand hospitals have specified for over half a century.

YOU put that ethyl alcohol drum there because U.S.I.'s reputation safeguards your own.

Write on your company letterhead for the new catalog describing all U.S.I. ethyl alcohol products.

U.S.I INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corp.
99 Park Ave., New York 16, N. Y.
Branches in principal cities

news of pressurized packaging

Burma Shave Changes Ads

The Burma Vita Co., Minneapolis, Minn., marketer of "Burma Shave" aerosol shaving cream and other products, has announced advertising plans which might put an end to the famous roadside Burma Shave signs. For more than 30 years the company has been using a series of rhyming roadside signs to sell its shaving cream, but in September will initiate a new television spot advertising campaign which, if successful, will do away with the road signs.

Allan Odell, president, and Leonard Odell, vice-president, the founders of the company, devised the idea of the signs, and report that a decade ago there were about 6000 sets of signs around the country. There are currently about 4000 sets, many of which haven't been replaced in years. Allan Odell explained that the signs are no longer "doing the job" because of faster driving habits (which prevent proper reading of the advertising message), and with the advent of fast toll roads which divert much of the traffic from the roads on which the Burma Shave signs have been erected.

•

Johnson Expands Canada Plant

S. C. Johnson & Son, Ltd., Canadian subsidiary of the U. S. aerosol marketer, recently announced plans to construct a 32,000-square-foot addition to its Brantford, Ont. plant. The added space will be used for light manufacturing and warehousing.

•

Hoyt Is Carter Chairman

Henry H. Hoyt, president of Carter Products, Inc., New York, has moved up to board chairman of the company. New president is Kirby Peake, who joined the company in 1959 as administrative vice-president. Previous to that he was president of the Vick Chemical Co. Division of Richardson-Merrell.

•

Wayne U. Names Dr. Barr

Dr. Martin Barr, former professor of physical pharmacy and pharmaceutical research at the Philadelphia College of Pharmacy and Science, has been appointed professor of pharmacy and chairman of the department of pharmaceutics at Wayne State University College of Pharmacy. Dr. Barr was the organizer of "The Aerosol Symposium for the Pharmaceutical Industry," the first such aerosol educational effort, which was held at the Philadelphia College on August 20, 1957. He has also been a speaker at conventions of the Chemical Specialties Manufacturers Association and organized one of the first college aerosol laboratories at the Philadelphia College.

Dr. Barr was 1956 winner of the Ebert Medal of the American Pharmaceutical Association for outstanding research in pharmacy. Since 1952 he has been technical editor of *The Apothecary* and the *Mid-Atlantic Apothecary*.

Aerosols at Packaging Forum

Two papers on aerosols, both part of the "Production Line & Machinery Seminar", will highlight aerosol interest at the Packaging Institute's 23rd annual National Packaging Forum at the Hotel Biltmore, Oct. 18-20. Scheduled for the morning of Oct. 19, the "Production Line & Machinery Seminar" will include:

Planning, Installing and Operating a Pressure Packaging Line, by J. P. Barrett, senior industrial engineer, S. C. Johnson & Son, Inc. Panel Members: Byron Kingery, Lederle Laboratories; Norman Yaeger, Colgate-Palmolive Co.; F. W. Politi, Rexall Drug Co.

Why and How Lederle Installed its Own Low-Volume Aerosol Line, by L. Byron Kingery, assistant to packaging superintendent, Lederle Laboratories Division of American Cyanamid Co.

Among the other seminars to be given is one on marketing, analyzing consumer preference as it relates to package shape, color, materials, and package convenience.

•

Eska Moves to New Quarters

Eska Chemical Co., Brooklyn, N. Y. custom filler, last month moved to larger quarters at 375 Herzl Street, Brooklyn. The new plant will give the company double its former manufacturing area, plus a 600-square-foot research and quality control laboratory. Also, it will enable Eska to have extensive bulk storage facilities for a wide variety of product types.

•

Canco Appoints Storch

Donald C. Storch has been appointed corporate manager of purchases by the American Can Co., New York. He has been with the company since 1949.

Disputed Regulations Eased in New Version of Label Law

IN the face of strong opposition from trade associations and individual companies, the Food and Drug Administration has retreated slightly on some key features of the regulations for the Hazardous Substances Labeling Law. In the "Final Order," published in the Federal Register for August 12, the FDA indicated it has met what it considers all "reasonable objections" to its previously-issued regulations.

Chief victory for industry appears to be in the matter of "signal" words (i.e. "Caution," "Danger," etc.). Originally, the FDA had prescribed that these words appear in uncondensed Gothic capital letters (in 30-point type, or type as large as the largest on the label) on the front panel of the package. This signal word must still appear on the main panel, but now "must be of a size bearing a reasonable relationship to the other type on the main panel, but must not be less than 18 point type unless the label space on the container is too small to accommodate such type sizes. When the size of the panel space requires a reduction in type size, the reduction may be made to a size no smaller than is necessary and in no event to less than six point." The FDA here also specifies that "the necessary prominence will be achieved by placing the warning label within a square or rectangular space and by use of suitable contrasts in color and/or typography."

A second regulation to which the aerosol industry registered strong opposition was similarly modified. This was a definition of an "extremely flammable self-pressurized container" as one which provided a flashback "a flame extending back *toward* the dispenser" at any degree of valve opening. The new final regulations prescribe that flashback be described as "a flame extending back *to* the dispenser," an interpretation closer to that accepted in industry circles.

The regulations state that human experience, as reported in scientific literature and to Poison Control Centers, establishes the hazard level of substances because of their toxicity and the frequency of their involvement in accidental ingestion. This applies to petroleum distillates such as kerosene, mineral seal oil, benzine, mineral spirits, paint thinner, and similar solvents and mixtures containing 10% or more by weight of such petroleum solvents. The same percentage was established for turpentines and ethylene glycol and a percentage of 4% was set for methyl alcohol.

The Hazardous Substances Labeling Law has already gone into effect on extremely flammable and highly toxic substances, and the new regulations will go into effect for other products on Feb. 1 of next year. The FDA advises that manufacturers and shippers may develop temporary stick-on labels or other means, such as tags, to provide the required warning information.

McGinley in New Crown Post

Crown Cork & Seal Co., Philadelphia, has announced the appointment of Gerald H. McGinley as marketing manager of machinery sales. He will be attached to Crown's Baltimore office.

Mr. McGinley, who has been associated with Crown since 1958, has been serving as district sales representative in the company's New York Office. Before joining Crown, he was on the administrative staff of the W. R. Grace Co., New York. He attended the University of Pennsylvania's Wharton School of Finance and Commerce, from which he was graduated with a bachelor of science degree, and the New York University Graduate School of Business.

•

CSMA Midwest Golf Meet

The Chemical Specialties Manufacturers Association has announced further details on its Midwestern Golf Tournament, to be held at the Itasca Country Club, Chicago, Ill. on Tuesday, Sept. 19. The tournament is open to all CSMA members who may bring one guest for each representative in attendance. The deadline for reservations was August 15. Cost of entry including golf and a steak dinner is $20 per person. Non-golfers may purchase dinner tickets at $10 each.

Tee-off time will start at 8:00 A.M. and to encourage more early starters there will be an "Early Bird Tournament" with special prizes to selected winners in those groups teeing off before 10:00 A.M. The CSMA trophy, eligible only to member golfers, will be awarded for the best low gross score, but the prize list available to both members and guests has been expanded to include awards to over fifty lucky winners.

Glenn E. Doerr of Federal Varnish Co. and Charles E. Allderdice of The Bell Company, co-chairmen of the Midwestern Golf Committee point out that the number of golfers will be limited to 150 players. Last year's attendance was 146 golfers and 180 for dinner.

•

MCA Plans Pkg. Symposium

The second Symposium on Packaging of Chemical Products, sponsored by the Chemical Packaging Committee of the Manufacturing Chemists' Association, has been scheduled for March 13-14, 1962 at the Chase-Park Plaza Hotel, St. Louis, Mo.

Arrangements for the symposium are under the direction of Robert F. Uncles, chairman of the Symposium committee and manager of the packaging and labeling section of American Cyanamid Co. Cooperating in conduct of the two-day symposium are the MCA Traffic committee, Labeling and Precautionary Information committee, General Safety committe, Tank Car, Tank Truck and Portable Tanks committee and the Physical Distribution subcommittee.

•

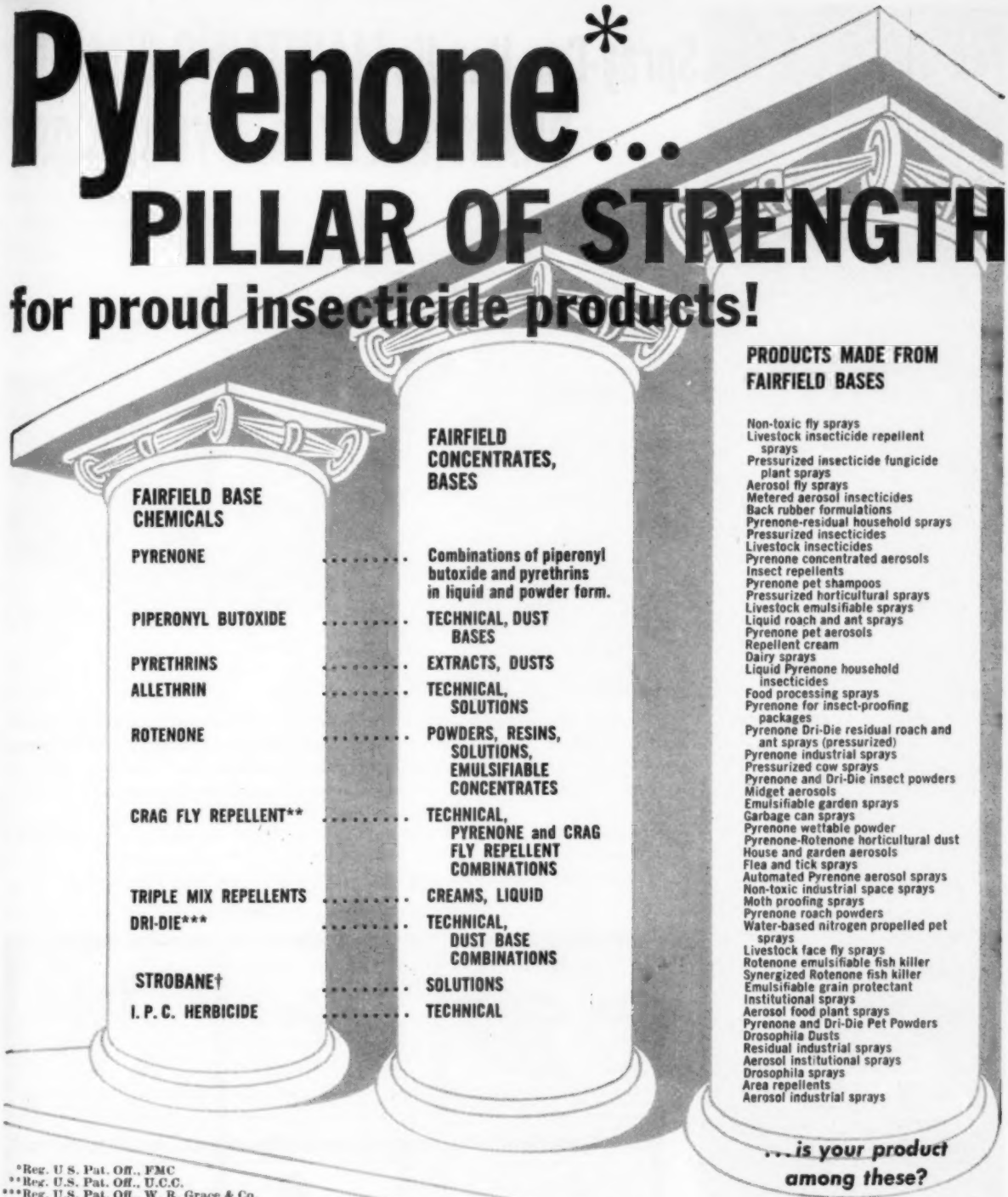
Storfer Heads Corday

New president of Parfums Corday, Inc., newly acquired subsidiary of Max Factor & Co., is Herbert F. Storfer, who had been executive vice-president. He succeeds his father, Benson Storfer, who will continue as a consultant.

Pyrenone*...

PILLAR OF STRENGTH

for proud insecticide products!



FAIRFIELD BASE CHEMICALS	FAIRFIELD CONCENTRATES, BASES
PYRENONE	Combinations of piperonyl butoxide and pyrethrins in liquid and powder form.
PIPERONYL BUTOXIDE	TECHNICAL, DUST BASES
PYRETHRINS	EXTRACTS, DUSTS
ALLETHRIN	TECHNICAL, SOLUTIONS
ROTENONE	POWDERS, RESINS, SOLUTIONS, EMULSIFIABLE CONCENTRATES
CRAG FLY REPELLENT**	TECHNICAL, PYRENONE and CRAG FLY REPELLENT COMBINATIONS
TRIPLE MIX REPELLENTS	CREAMS, LIQUID
DRI-DIE***	TECHNICAL, DUST BASE COMBINATIONS
STROBANE†	SOLUTIONS
I. P. C. HERBICIDE	TECHNICAL

PRODUCTS MADE FROM FAIRFIELD BASES

- Non-toxic fly sprays
- Livestock insecticide repellent sprays
- Pressurized insecticide fungicide plant sprays
- Aerosol fly sprays
- Metered aerosol insecticides
- Back rubber formulations
- Pyrenone-residual household sprays
- Pressurized insecticides
- Livestock insecticides
- Pyrenone concentrated aerosols
- Insect repellents
- Pyrenone pet shampoos
- Pressurized horticultural sprays
- Livestock emulsifiable sprays
- Liquid roach and ant sprays
- Pyrenone pet aerosols
- Repellent cream
- Dairy sprays
- Liquid Pyrenone household insecticides
- Food processing sprays
- Pyrenone for insect-proofing packages
- Pyrenone Dri-Die residual roach and ant sprays (pressurized)
- Pyrenone industrial sprays
- Pressurized cow sprays
- Pyrenone and Dri-Die insect powders
- Midget aerosols
- Emulsifiable garden sprays
- Garbage can sprays
- Pyrenone wettable powder
- Pyrenone-Rotenone horticultural dust
- House and garden aerosols
- Flea and tick sprays
- Automated Pyrenone aerosol sprays
- Non-toxic industrial space sprays
- Moth proofing sprays
- Pyrenone roach powders
- Water-based nitrogen propelled pet sprays
- Livestock face fly sprays
- Rotenone emulsifiable fish killer
- Synergized Rotenone fish killer
- Emulsifiable grain protectant
- Institutional sprays
- Aerosol food plant sprays
- Pyrenone and Dri-Die Pet Powders
- Drosophila Dusts
- Residual industrial sprays
- Aerosol institutional sprays
- Drosophila sprays
- Area repellents
- Aerosol industrial sprays

...is your product among these?

*Reg. U S. Pat. Off., FMC
**Reg. U.S. Pat. Off., U.C.C.
***Reg. U.S. Pat. Off., W. R. Grace & Co.
†Reg. U.S. Pat. Off., Hayden Newport Chemical Corp.

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Branches in principal cities. In Canada: Natural Products Corporation, Montreal and Toronto.

Spray-Can Handle MAINTAINS QUALITY DRASTICALLY REDUCES YOUR COST

TAKE AIM AT BANG-UP PROFITS!

No matter what you package in an aerosol can, *you'll broaden customer use, make more sales with ALFCO'S new low cost Spray-Can Handle.* **What's more, you'll *keep* selling more of your product to more satisfied customers who'll find new cleanliness, less "finger fatigue," new ease and convenience in using it. The new ALFCO Spray-Can Handle adds even more prestige to what you have to sell through its smart, modern design and quality construction. And you can personalize it, identify it with your product, by means of your own private label!**

Protect your reputation with ALFCO'S higher quality—lower cost

SNAPS ON ANY AEROSOL CAN IN A JIFFY

Line up valve button with handle. Hook over forward lip, hold with index finger and press down. To remove, lift up on handle.

ALFCO BRAND

FOR USE IN UNLIMITED SPRAY APPLICATIONS

INSECTICIDES... Easier spraying of hard-to-reach areas of house and garden. Keeps hands from contact with toxic sprays.
WINDOW CLEANERS... Accurate spray pattern makes window cleaning easy. A "must" for reaching high windows, nooks and crannies.
HAIR SPRAYS... Your customers spray hair with great ease and pinpoint accuracy for even application. Ideal for beauty parlors.
PAINT PRODUCTS... Provides even, uniform professional applications of paints, lacquers, enamels, varnishes without fuss or mess. Keeps hands clean.
ART & DRAFTING... "Fixing" of artwork is a breeze, less messy. Even application eliminates runs and streaks. Many industrial uses.
MOTH SPRAYS... Provides complete directional control for spraying furniture, closets and carpets.

ALFCO, INC.

4950 South Sepulveda Boulevard Culver City, California UPton 0-6716

Kay Daly to Revlon Post

Kay Daly has been appointed vice-president for creative services of Revlon, Inc., New York. She will work with Revlon's advertising and merchandising departments in all areas involving visual presentations and will be responsible for coordinating creative writing for all departments.

Miss Daly comes to Revlon from 12 years at Norman, Craig and Kummel, Inc., where she has been vice-president and creative director. During seven years Revlon was a major Norman, Craig and Kummel account, and Miss Daly was largely responsible for such memorable promotions as "Fire and Ice" and "Cherries In the Snow". She is reported to be one of the country's leading woman authorities on advertising cosmetics to women.

•

Gottscho Names Sales Agents

Adolph Gottscho, Inc., Hillside, N. J., manufacturer of automatic production-line package marking, coding and imprinting machines, has announced the appointment of three new sales agents in the U. S., a Canadian distributor and an overseas licensee.

The new sales agents are Equipsale Co., Clarendon Hills, Ill., for Indiana; Material Handling Equipment Co., Richmond, Va., for Virginia; and Webster Equipment Co., Chicago, for Northern Illinois.

Griswold Engineering Ltd., Montreal and Toronto has been named exclusive distributor of the Gottscho line in Ontario, Quebec, and the Maritime Provinces. At the same time Gottscho announces that Markoprint Ltd., London, has been licensed to manufacture and sell its machines in Europe and all British Commonwealth nations execpt Canada.

•

Hercules Revamps Plastics Group

Six managerial and supervisory appointments in the plastics sales section of its Polymers Department, have been announced by Hercules Powder Co., Wilmington, Del.

The appointments are:

Emmett E. Hixon, Manager, plastic sales

Robert C. Clark, Product manager of "Hi-fax" high-density polyethylene

Robert D. Ullrich, Product manager of "Pro-fax" polypropylene

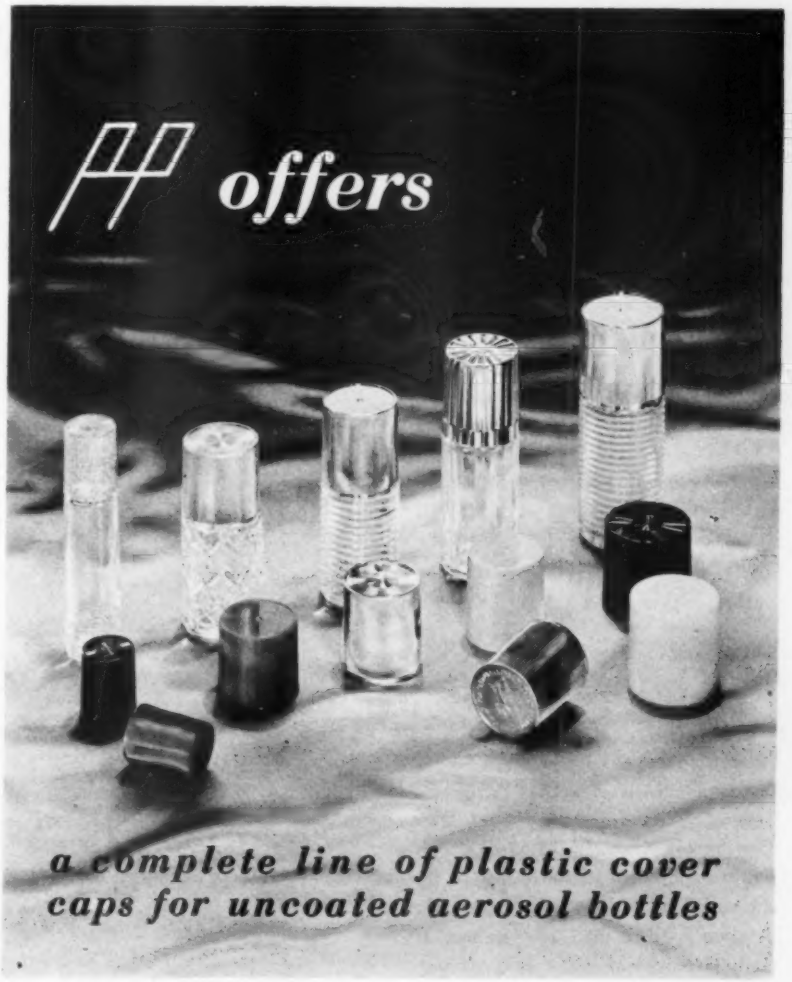
George M. Taylor, Product supervisor of "Penton chlorinated polyether

William O. Bracken, Supervisor, market development

Russell D. Hanna, Supervisor, technical service

Western Pkg. Show Set

San Francisco's Brooks Hall will be the scene of the tenth annual Western Packaging Exposition, July 17-19, 1962, reports Clapp & Poliak, producers of the event. Clapp & Poliak last month indicated that more than 40% of the exhibit space had already been contracted for. The show alternates between San Francisco and Los Angeles, annually attracting more than 10,000 buyers.



Caps pictured in gold, colors and sparkle effects. Left to right: 1 oz.; 1½ oz. regular; 1½ oz. tall; 2 oz. and 3 oz. sizes.

In plain tops for labelling, — "bulls eye" tops where labelling is not desired, — and customized versions.

PHARMAPLASTICS, inc. CEnter 3-7311

205 S. Smallwood Street, Baltimore 23, Md.

Del Vecchio to Sun-Lac

The appointment of Silvio A. Del Vecchio as production manager has been announced by Sun-Lac, Inc., Clark, N. J. custom filler. He will be in charge of the maintenance, engineering and production operations on all Sun-Lac aerosol filling lines. Prior to joining Sun-Lac, he was maintenance group leader at Revlon; and previously supervisor of production and maintenance for Fluid Chemical Co.

•

Peerless Expands Operations

Peerless Tube Co., Bloomfield, N. J., a leading supplier of aluminum aerosol containers, last month disclosed plans to break ground shortly for a new addition to its plant in Bloomfield. At the same time the company, a major producer of collapsible metal tubes, concluded a license agreement with Thatcher Glass Manufacturing Co. to make collapsible tubes of plastic, using techniques developed by Thatcher.

The plant addition, part of a $500,000 expansion program, will provide Peerless with an additional 33,000 square feet of manufacturing and warehouse space. Much of it will be used for the new collapsible tube making operation. Under terms of the agreement with Thatcher, Peerless is licensed to produce polyethylene, linear polyethylene, polvinyl chloride, and polypropylene tubes.

•

Expands Aerosol Activities

The Liquid Carbonic Division of General Dynamics Corp., 4400 West 45th Street, Chicago 32, Ill. is currently expanding its activities in the aerosol field, Edward J. Vogel, the division's director of industrial-medical technical sales, told *Aerosol Age* last month. The company, which claims to be the largest U.S. supplier of carbon dioxide and among the largest suppliers of nitrous oxide, announced an expansion of its technical staff in the aerosol food field.

Mr. Vogel declared that Liquid Carbonic "can now supply such propellants as carbon dioxide, nitrous oxide, and nitrogen in both gaseous and liquid form. Supply packages range from high-pressure steel cylinders on through portable and 'on-site' liquid storage units. In addition to 'single-gas' supply, we can also furnish customized gas mixing systems and specially prepared propellant mixtures."

•

Corrugated Box Prices Up

The price of corrugated material used to make shipping containers will rise throughout the country on Sept. 1. So far six producers of corrugated containers have announced price increases up to 10%. These are Continental Can Co., Container Corp. of America, Inland Container Corp., Packaging Corp. of America, St. Regis Paper Co., and Union Bag-Camp Paper Corp.

Four other major producers, Federal Paperboard Co., International Paper Co., Stone Container Corp., and West Virginia Pulp & Paper Co. hadn't yet made such an announcement. The companies which did announce the increases said rising costs, coupled with lower selling costs, had resulted in "unsatisfactory profits."

Hardware Show at Chicago

The 1961 National Hardware Show, scheduled for Oct. 2-6 at McCormick Place in Chicago, is already a sellout and will occupy every bit of the more than 300,000 square feet of space in the $34 million exposition center. This news was announced last month by Frank M. Yeager, managing director of the show, who reported that more than 1000 manufacturers of hardware, houseware, lawn, garden, and outdoor living products will make the show the largest, most complete, and most diversified trade show in the United States.

The Hardware Show annually draws more than 40,000 buyers from the U.S. and from 40 foreign countries. An added attraction this year will be the first annual Hardware Packaging Exposition to be held in a special section of the show. Winners based on technical, functional and merchandising aspects will be announced during the show by the Hardware Packaging Committee of the Packaging Institute, which is sponsoring the exposition.

Cosmetics' Biological Activity Is Subject of SCC Seminar

THE SOCIETY OF COSMETIC CHEMISTS last month announced the program for its 8th Annual Cosmetic Seminar scheduled for Sept. 26 and 27, in the Theatre of the Barbizon-Plaza Hotel, 106 Central Park South, New York. Dr. H. W. Zussman, chairman of the seminar committee, has arranged a series of papers on the "Biological Activity in Cosmetics." The program for the two-day meeting will be as follows:

The Problem of Biological Activity in Cosmetic, by Emil Klarmann, Ph. D., Lehn and Fink.

Anti-inflammatories, by Norman Orentreich, M. D., New York University School of Medicine.

Effects of Estrogens on Sebaceous Glands, by John Strauss M. D., Boston University School of Medicine.

The Use of Flourides in Anti-cariegenic Dentifrices, by D. S. Barre, Procter & Gamble.

Ultraviolet Absorbers, by John M. Knox, M. D., Baylor University School of Medicine.

Enzymes, by K. L. Howard, Ph.D., Wallerstein Laboratories

Vitamins, by H. Rubin, Ph.D., Hoffman La Roche

Anticholinergics, by J. F. Migliarese, Ph. D., Colgate-Palmolive.

Should Bacteriostats be Added to Toilet Soaps, by W. M. Linfield, Ph. D., and R. E. Casely, Armour & Co., Grocery Products Division.

Antibiotics, by Vincent de Gennaro and R. E. Mackey, Chas. Pfizer & Co.

Skin-bacteriostat Relations, by Thomas Furia, Geigy Industrial Chemicals.

Mechanisms of Bacteriostatic Action, by Eugene D. Weinberg, Ph. D., Indiana University.

Due to limited registration the SCC has urged those who wish to attend to forward their reservations, together with a check for $30 for members and $35 for non-members to cover the full cost of the two-day meeting, to Walter Wynne, Society of Cosmetic Chemists, 2 East 63rd Street, New York 21, N. Y.

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The graceful Pont Neuf—Paris.

Perfumes that are destined for long and successful recognition in the market places of the world, are the result of truly creative inspiration plus sound judgment and scientific experience.

These abilities are yours through I.F.F. to help you choose a distinguished fragrance for your new product.

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1961 AEROSOL PACKAGE CONTEST

Sponsored by the Aerosol Division,
Chemical Specialties Manufacturers Association

Products may be entered in any of the following categories:

1. *Automotive Products*
2. *Insecticides, Repellents and Moth Proofers*
3. *Room Deodorants*
4. *Paints, Enamels, Other Protective Coatings, and Paint Remover*
5. *Other Household Products (snow, polishes, glass cleaner, starches, water repellents, etc.)*
6. *Shave Products*
7. *Hair Preparations*
8. *Perfumes, Colognes, and Toilet Waters*
9. *Other Personal Products (dentifrices, shampoos, body deodorants, sun tan preparations, etc.)*
10. *Food Products*
11. *Horticultural Products*
12. *Medicinal and Pharmaceutical Products*
13. *Veterinary and Pet Products*
14. *Industrial Products*
15. *Foreign Products*

- All entries will be made in the name of the brand owner or marketer. The product must be on the market and have been *freely offered for sale prior to Sept. 1, 1961.* Contract fillers are urged to enter packages for their customers, but the vendor's name must be on form as required. Entries should be made only with permission of vendor and notification of any award will be sent to the vendor with the name of the individual furnished.
- Entries will close Oct. 15, 1961. All entries should be sent as soon after Sept. 1, 1961, as possible to the Aerosol Awards Committee at the CSMA office, and should comprise one completely *assembled empty* container with attached tag showing (a) name and address of the brand owner; (b) class in which entry is made by number.
- *One completed entry blank must be sent for each package entered.* Additional entry blanks will be sent promptly on request.
- Only *one* entry may be made by any marketer or brand owner in any *one class,* but entries may be made in as many classes as desired by each.
- Entries are open to *any aerosol brand owner or marketer anywhere,* and are *not* restricted to members of CSMA.
- There are no entry fees or other charges to entrants.

Awards will be announced at the 48th annual meeting
of the CSMA, Dec. 4-6
Hotel Roosevelt, New York, N. Y.

For further information, complete rules, and entry blanks, write to:

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION
AEROSOL AWARDS COMMITTEE
50 East 41st St., 10th Floor, New York 17, N. Y.

Package Use Called Key to Commercial Success

A few years back, package designers began busily researching the question: "What makes women buy?" These same packaging specialists now are equally pre-occupied with finding out how women use products in the home and where they store them.

If a homemaker stuffs a package into a pantry or kitchen cabinet and it remains untouched for days or weeks, its design has failed, according to a leading authority in the packaging field, Albert Kner, director of the design laboratory at Container Corp. of America, Chicago.

"What really counts is how fast Mrs. Consumer uses the product when she gets home," Mr. Kner says.

For example, sometimes a woman's attention is drawn by a product's package as she breezes down a store aisle. But at home, many packages that seemed attractive in the store look garish on the kitchen or bathroom shelf, and she puts them out of sight and loses interest in the contents. According to Mr. Kner, the job of the container industry is to see that this does not happen . . . to see that Mrs. Consumer does like the way a package looks in her home. Thus, today, the trend is to packaging with a dual function of selling at the point of purchase and complying with the visual decors of home environments. Accordingly, cosmetics are being packaged with soft, appealing colors that harmonize with bathroom decor. Food package dimensions, such as those of cereal boxes, are being trimmed in height to fit home shelf space.

Packaging designed with women in mind—and most of it surely is—should feature subtle, discriminating style, says Mr. Kner. In stating a case for "class" packaging, he notes that Container Corp. of America consumer research studies of the female buying-public evidence the fact that the tastes and interests of women are more *cosmopolitan* and more *sophisticated* than ever before. "They read 'good' books, travel, buy gourmet foods, and decorate their homes with taste. They accept innovations readily, and they want to get away from stereotyped basic designs and the monotony of red, white and blue."

Prestige is built into product packages in many ways . . . through carton construction, color or color combinations, design or illustrations. Mr. Kner feels "prestige" is a must in packaging today because "so many products are similar or identical except for name that it's the container with class that will leave the store with the customer—and whose contents will be consumed the fastest."

Crown, Subsidiary Agree to Merge

Crown Cork & Seal Co., Philadelphia, and its subsidiary, Crown Cork International Corp., last month reached an agreement on terms for a merger. Terms call for an exchange of one and a half shares of Crown preferred stock plus one-quarter share of common stock for each share of Crown Cork International Class A Stock.

•

Revlon Drops TV Shows

An advertising policy change from regular use of spectaculars to regular weekly television has brought a shift in plans by Revlon, Inc., involving the discontinuance of further sponsorship of additional Harry Belafonte special shows. This was announced by Ted Bergmann, vice-president of advertising for Revlon. He said an amicable settlement cancelling an existing agreement has been worked out with MCA, Inc., representing Mr. Belafonte.

"Naturally," Mr. Bergmann said, "we regret the loss of Mr. Belafonte's considerable talents, but our revised requirements made regular continuation of sponsorship of special programs inappropriate. We expect to utilize weekly programs except as special promotions dictate otherwise." In the announcement, Mr. Belafonte himself expressed great satisfaction with the two Revlon specials and extended his personal appreciation to those individuals who aided in their production.

The Revlon shift in advertising policy came last spring, Mr. Bergmann said, following a careful reappraisal of Revlon requirements. The company in March began sponsoring the Alfred Hitchcock program and Wagon Train on an every-other-week basis. Plans for this fall call for alternate week sponsorship of the Ed Sullivan and Checkmate shows.

Mr. Bergmann took occasion to praise the two shows which Mr. Belafonte produced under Revlon sponsorship, the first of which received a coveted Emmy Award from the Academy of Television Arts and Sciences. The second program was nominated for a second Emmy this year. He said both shows had produced excellent ratings and very fine audience response.

•

Aerosol Starch to Australia

Home Products International Ltd., West Richmond, Victoria, has succeeded in marketing the first aerosol starch product for the Australian market. The product is "Easy-On," which was previously introduced to the U.S. and British market by American Home Products Corp., parent company of Home Products International.

•

SCA Appoints Sellmer

Strong Cobb Arner Inc., Cleveland leading custom pharmaceutical manufacturer, has appointed Edward H. Sellmer as assistant vice-president and general sales manager. At the same time the company also announced the opening of its Chicago regional office, 1242 Hartford Plaza, 100 South Wacker Drive (telephone 332-0704), as headquarters for its sales and customer service activities in the midwest and west. Mr. Sellmer will make his office in Chicago.

Prior to his association with Strong Cobb Arner he was director of sales and marketing at Wilson Laboratories, the pharmaceutical division of Wilson & Co., Chicago, and prior to that was sales manager of Barlow-Maney Laboratories.

IS IT SAVING OR COSTING YOU MONEY?

There's more to distribution costs than the price tag on a shipping service. Quite often, the cheapest way is the most expensive in the long run. Look at your whole marketing and distribution set-up. Then consider how KLM can help you in overseas shipping. ■ KLM speed enables your sales manager to make good on short-notice demands; lets him compete in foreign markets through faster delivery. Your production manager, too, can save valuable time on tight production schedules. ■ That's not all. With KLM air cargo you don't have to tie up money in large inventory stocks. You can replace orders fast. Avoid the costly risk of obsolescence. And the shipping time saved means less interest paid on financing charges. ■ Then there's the satisfaction of knowing your shipment is in experienced, able hands. KLM Cargo Representatives at 114 cities in 80 countries are men of decision. They accept full responsibility, get your shipment to the right place at the right time, at the lowest possible cost. ■ So—study every piece in your distribution pattern, and decide for yourself. KLM Royal Dutch Airlines, 609 Fifth Avenue, New York 17, New York.

THE WORLD OVER
KLM
ROYAL DUTCH AIRLINES

Canadian Aerosol Contest

Point-of-purchase impact of Canadian aerosol packages will be tested at the first Annual Canadian Aerosol Package Contest, sponsored by the Canadian Manufacturers of Chemical Specialties. Awards will be presented at the Association's convention, Royal York Hotel, Toronto, Oct. 30th to Nov. 1st.

Awards will be based on the appearance of the package only. Factors taken into consideration in the judging will be: label design, color, package shape and valve cover. The purpose of the contest, according to CMCS, is to stimulate interest in developing more attractive aerosol packages in the Canadian market.

The contest is open to any aerosol product available in Canada on or before Sept. 1st. Entries are open to any aerosol brand owner or marketer and are not restricted to CMCS members. There are no entry fees or other charges. Entries are classified in 15 categories, ranging from automotive products to veterinary and pet products and including such staples as insecticides, paints, hair preparations and food products. An award will be given for the top package in each category, and in addition, a "best of show" award will be given for the best package in the opinion of the judges.

•

Aerosols Show New Gains

Aerosol products sold in drug stores continue to be counted among the fastest selling items, a new survey by *Drug Topics* has indicated. Analyzed in the July 24 issue of *Drug Trade News*, the survey lists aerosol deodorants and colognes as two of the ten toiletry lines showing the greatest sales increases of any products sold in drug stores.

Aerosol deodorants, mainly as the result of the Gillette "Right Guard" campaign, sold $360,000 in 1960, as against $300,000 in 1959. This was a gain of 19.1%, fifth largest gain (behind hair color rinses, mascara, eye shadow, and hair tints and dyes). Sales of aerosol colognes rose from $14,690,000 to $16,950,000, a gain of 15.4%.

Among the other aerosol products surveyed, spray hair fixatives gained 6.7% to $51,110,000. Shaving cream rose 8.5% to $71,260,000, mainly due to a 14.7% increase which brought aerosol shaving cream sales to $51,110,000.

•

PI Studies Label Law

L. H. Zahn, of Ciba Pharmaceutical Products, president of the Packaging Institute has announced formation of a Packaging Institute industry task committee to deal with the problems brought to light at the recent Senate Committee Hearings on Packaging and Labeling Practices. Lloyd Stouffer, editor of *Modern Packaging* magazine and a director of the Packaging Institute will be chairman of the task committee. The committee will include representatives of leading national companies—each a corporate member of the Packaging Institute.

Alpine Names Sales Mgr.

The appointment of R. J. Salyerds as sales manager and technical representative for the Eastern section of the United States was announced last month by Alpine Aromatics, Inc. Prior to joining Alpine, he was a vice-president of Harwick Standard Chemical Co. of New Jersey. He was previously associated with the Goodyear Tire & Rubber Company, Akron, Ohio in their research and development division and in rubber compounding.

Mr. Salyerds received his B.S. degree in chemistry from the University of Akron. He is a member of the American Chemical Society, participating actively in the Philadelphia, New York and Washington Rubber Groups, and the Trenton Division of the American Chemical Society.

•

Powers Joins Fabric Firm

Dr. Donald H. Powers, former head of research at Warner-Lambert Pharmaceutical Co., has joined Fabric Research Laboratories, Inc., Boston, as assistant director. He will head the chemical research functions of the firm.

now a plastic starch for the aerosol market!

New from Polyvinyl Chemicals! NeoVac V21P synthetic polymer emulsion opens the growing spray starch market for plastics. This is a breakthrough that offers powerful consumer advantages over ordinary natural starches . . . lasts through 8 washes, is easy to apply, and in the long run costs Mrs. Housewife less. NeoVac V21P is non-yellowing and is stabilized to permit loading in aerosol cans.

Market NeoVac V21P plastic starch under your label! Want samples?

POLYVINYL CHEMICALS, INC.

26-39 Howley Street, Peabody, Massachusetts

Herbert Benedict Named

Herbert Benedict has been appointed a midwestern sales representative for the Isotron Department, Pennsalt Chemicals Corp., Philadelphia. Assigned to the north central states area including Chicago, northern Illinois, Wisconsin and Minnesota, he will represent the firm's broad line of "Isotron" refrigerants and aerosol propellants. He is a native of Chicago and served for over three years in the U. S. Navy during World War II.

•

Seeks U. S. Cosmetics Products

Aerosol Afvulstation, 24-30 Oude Looiersstraat, Amsterdam, Netherlands, has announced it is seeking a licensing arrangement with a U. S. company to manufacture certain cosmetic products in the Netherlands. Processes and techniques used for the U. S. products are sought, and the company is also willing to import cosmetics in bulk for aerosol packaging at its plant in Amsterdam. The company was established in 1959 and currently fills mostly insecticides, cosmetics, and household products for the Dutch consumer market.

•

British Filler Incorporates

Aerosol Fillers, Ltd., is the name of a new company just incorporated in London to "manufacture and deal in aerosols, cleaning preparations, soap and washing materials, detergents, etc." H. Presman and G. F. Keen, both officers in Durazone (Sales) Ltd., an aerosol marketer, are filers for the new company, which lists its address as 103 Great Portland Street, London W.1.

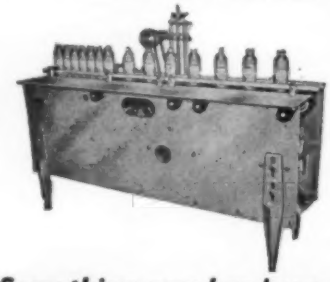
•

Sterling Seal Names Three

As part of a general expansion of its engineering and research and development departments, Sterling Seal Co., Erie, Pa., fabricator of aerosol cover caps, last month announced that Spiro Vass and Joseph Scalia, formerly of J. L. Clark Co., and Ottie W. Lemerise, formerly of Crown Cork & Seal Co., have joined the company.

KIWI®

AEROSOL CODE DATING EQUIPMENT
that has *earned* industry acceptance



POWER DRIVEN CODER

With work table area.

For automatic code dating of concave bottoms of aerosol cans.

Will mark top, bottom, or both at the same time.

No change parts needed

Something new has been added . . .

NEW KIWI® AUTOMATIC CODE DATER
Mounts on Conveyor Line or Case Sealer

Uses ink reservoir system. One internal inking with poly squeeze bottle lasts from two to four weeks, or 25,000 to 150,000 impressions, depending upon the amount of printing required.

Average cost of ink for one code dater for one year is about $3.00

KIWI® sponge inkers last one to three years and can be repadded at very low cost.

Right or left hand mounting.

Also . . .

case printers for consecutive numbering or printing information on cases

KIWI® CODERS CORPORATION

Dept. AA, 4027 N. KEDZIE AVE. IRving 8-5117 CHICAGO 18, ILL.

AMA Lists Packaging Seminars

The American Management Association, 1515 Broadway, New York 36, has announced a series of workshop seminars in packaging to be given in Chicago and New York. In chronological order, they will cover the following subjects:

1. *"Packaging Costs and Controls"* (Sept. 11-13) Hotel Astor, New York), a discussion of package dollar management, planning expenditures, controlling packaging operations, evaluating package performance, and future costs and controls for packaging.
2. *"Packaging Children's Products"* (Sept. 20-22, La Salle Hotel, Chicago), discussing such subjects as design, who buys in this market, adult products for this market, advertising, distribution, and market research.
3. *"Packaging Development and Engineering"* (Oct. 2-4, Hotel Astor, New York), manufacturing's role in the total packaging program, organization and operations, product-package relationships, cost reduction and profit improvement, and future packaging trends.
4. *"Package Design and Merchandising"* (Oct. 2-4, Hotel Astor), marketing's role in total packaging program, planning and organization, cost and profits, and tomorrow's package.

•

Henderson to DuPont Post

D. R. Henderson has been named advertising supervisor of DuPont of Canada, Ltd., Montreal. His responsibilities include aerosol propellants, refrigerants, agricultural chemicals, pigments, and plastics. He joined DuPont of Canada in 1959 as an advertising assistant prior to which he was with Cockfield, Brown, and McKim advertising.

•

PMMI to Meeting at Show

The Packaging Machinery Manufacturers Institute Show, scheduled for Detroit's new Cobo Hall, Nov. 7-10, will hold a two-day conference-workshop in conjunction with the show. Scheduled for Nov. 8 and 9, the conference-workshop will include a number of speakers from leading suppliers and users of packaging equipment. On Nov. 9, the workshop phase of the program, the audience will be divided into five equal groups with equal opportunity for discussion of the various topics.

CSMA Lists Details for '61 Aerosol Contest

THE tenth annual Aerosol Package Contest will be held in conjunction with the 48th annual meeting of the Chemical Specialties Manufacturers Association in the Roosevelt Hotel, New York, Dec. 4-6. Judging and selecting of the best aerosol packages of the year will be made on the basis of general sales appeal of the complete package, with awards made on the basis of package design only. Names of contest judges, specialists in the field of package design, will be announced at a later date.

Aerosol package competition and awards will be divided into 15 groups:

1. AUTOMOTIVE—Products submitted in this group must be specifically packaged and labeled for automotive use.
2. INSECTICIDES, REPELLENTS AND MOTH PROOFERS.
3. ROOM DEODORANTS.
4. PAINTS, ENAMELS, OTHER PROTECTIVE COATINGS AND PAINT REMOVER.
5. OTHER HOUSEHOLD PRODUCTS—polishes, glass cleaner, rug shampoo, starches, water repellents, shoe polishes, snow, etc.
6. SHAVE PRODUCTS.
7. HAIR PREPARATIONS.
8. PERFUMES, COLOGNES AND TOILET WATERS.
9. OTHER PERSONAL PRODUCTS —dentrifices, shampoos, body deodorants, sun tan oil, etc.
10. FOOD PRODUCTS.
11. HORTICULTURAL PRODUCTS.
12. MEDICINAL AND PHARMACEUTICAL PRODUCTS.
13. VETERINARY AND PET PRODUCTS.
14. INDUSTRIAL PRODUCTS—lubricants, stencil inks, belt dressings, etc.
15. FOREIGN PRODUCTS — Products submitted by foreign companies which are marketed outside the U.S. will be judged in the appropriate categories above. Then they will be judged collectively for the best foreign entry submitted.

Entries are open to any aerosol brand owner or marketer and are not restricted to members of CSMA. There are no entry fees or other charges, and entries may be made in as many classes as desired by the same marketer or brand owner.

Deadline for entries is Oct. 15. Entry blanks and rules are available by writing to Chemical Specialties Manufacturers Association, 50 East 41st Street, New York 17.

Hansen to Bradley-Sun

Harold M. Hansen has been named general sales manager of the Bradley-Sun Division of American Can Co. He became a salesman with the Bradley Container Corp. in April, 1956. Later that year, American Can acquired Bradley Container as well as the Sun Tube Corp. The two latter companies were discontinued as subsidiaries three years ago and now operate as the Bradley-Sun Division of American Can. Mr. Hansen was named assistant sales manager of the Division in 1960.

He began his career in the packaging field as manufacturer's representative for Shellmar Products, and in 1954 joined Joseph Parment Co.., grocery brokers, remaining with that company for two years.

•

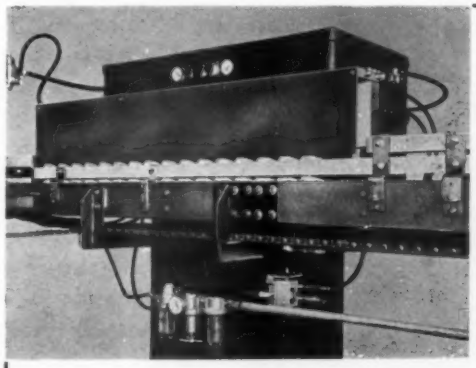
Purex Buys Drug Firm

The Potter Drug and Chemical Co., Malden, Mass., has been purchased by the Purex Corp., Ltd., Chicago, marketer of household cleaning products, for the sum of $3 million. Potter markets the "Cuticura" line of medicated drug products. Purex also markets a line of cosmetics and drug sundries through its subsidiary, the Allen B. Wrisley Co. Potter will operate as a Purex subsidiary, under its present management.

•

Pond's Reorganizes Divisions

Chesebrough-Pond's, Inc., recently reorganized its operations to include two separate domestic marketing divisions, a cosmetic unit and another handling proprietaries and toiletries. The Cosmetics Division, under vice-president Northam Warren, Jr. will handle cosmetics manufactured by both Pond's and by its recently acquired subsidiary, Northam Warren. This division will not affect the Prince Matchabelli Division, which has its own line of toiletries and cosmetics. The Proprietaries - Toiletries Division will handle the "Vaseline" and "Pertussin" products.



GAYLE V

16 Head Positive Gassing *and* Shaking Machine

- **Adaptable for several sized containers in minutes, up to 60 containers per minute, depending on gassing cycle.**
- **This machine may be installed next to most existing conveyors.**
- **Times itself into production automatically.**
- **Balanced rotary shaking action.**
- **All parts protected from oxidation.**
- **Any timing cycle can be made with a simple twist.**
- **Regardless of voltages used — control circuit is 110-volt for operator protection.**

For further information, write:

GAYLE ENGINEERING COMPANY

2443 East 27th Street Phone: LUdlow 3-4223 Los Angeles 58, Calif.

Maruichi Lip Button

Especially designed for AEROSOL PAINTS!
Automatic open-and-close cycle of orifice prevents clogging . . .

Spray of over 8 inches in breadth ideal for paints.

Lowers paint package price by 1/3

3-fold saving in painting time and labor

3 times more painted area with one can

Write for samples and descriptive literature today.

MARUICHI MANUFACTURING CO.
2246 Nishisugamo 2-chome, Toshima-Ku
Tokyo, Japan

PACKAGING EXHIBITION 1961

pama

We manufacture all the Aerosol-Machines, semi- and fully-automatic: Filling machines for liquids, Crimpers, Pressure Fillers, Propellant Pumps, etc.

pama

We show you here our Propellant Pump, known as one of the best products on the world-wide Aerosol-machine-market.
Gebr. Mäder, Rapperswil/SG, Postfach 59 Schweiz

INTERNATIONAL PACKAGING EXHIBITION LONDON
from the 5th-15th September 1961.
STAND ORANGE 354

New Co. Enters Valve Field

A new company has announced its entry into the aerosol valve manufacturing business. Called Uni-Valve Corp., it is located at 9947 Franklin Ave., Franklin Park, Ill. (Phone number GLadstone 1-0046.)

The company's principal item of sale will be a valve called the "UV-100," which it is claimed will reduce inventory requirements for special valves "by eliminating the necessity of metering holes or slots and provide flow and spray pattern versatility by design of a molded nylon bullet in the rear of the UV-1100 spray head." Samples may be obtained by writing the company's Technical Sales Department.

•

Can Mfrs. Issue Booklet

The nation's third largest steel consuming industry has just made statistics available which account for the end use of a grand total of 4,818,164 tons of steel used by can manufacturers during 1960. The statistics are included in the "Annual Report of Steel and Tin Consumed in Metal Cans," a 24-page booklet just issued by the Can Manufacturers Institute, Suite 1100, 551 Fifth Ave., New York 17, N. Y. For the first time the report shows shipment figures on aluminum tonnage for cans and also the tonnage of steel used for aerosol containers. A total of 20,314 tons of aluminum went into the making of cans, while the amount of steel used in pressure packaging totaled 66,440 tons.

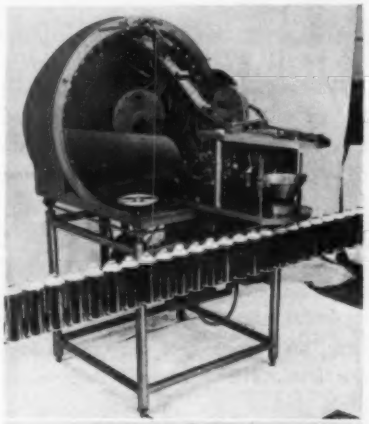
equipment processes bulletins

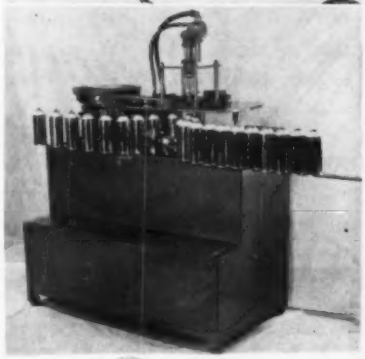
Valve Inserter and Buttoner Developed by New Aerosol Firm

A COMPANY relatively new to the aerosol industry has come up with two pieces of aerosol equipment which could go far toward stepping up automation of aerosol lines. The new company, called Westoak Machines, Inc., 30 North West Street, Mount Vernon, N. Y., last month announced a machine to automatically insert valves (with dip tubes) into aerosol cans and another to automatically apply actuator buttons. To date, both these operations have been done mostly by hand.

The valve inserter (top photo) picks up valves from a hopper, orients them, and inserts them into aerosol cans passing along the conveyor belt. Valves with dip tubes of various lengths for cans ranging in size from 3¼ to 7 inches high can be used, and a hand wheel is provided to adjust the machine for various sizes. The unit operates at speeds of up to 60 valves per minute and may be supplied with explosion-proof wiring for hydrocarbon filling. Air-activated parts, pre-piped, have an inlet which can be conveniently connected to a "quick couple."

The high-speed buttoner (bottom photo) works at speeds to 80 per minute and can also be supplied with explosion-proof features. Raising or lowering of the applicator head may be done with a convenient hand wheel, with the range of adjustment five inches. Its design for continuous type conveyor lines permits installation either before or after the water bath.





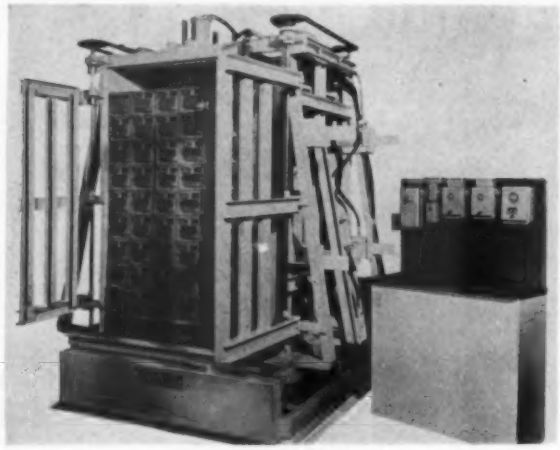
Both valve inserter and buttoner reportedly have been installed in the plants of some of the East's largest fillers and marketers. Both are said to be operating at high efficiency for a wide variety of product types. Bulletins on both pieces of equipment are available by writing directly to the company.

•

New British Hair Spray

Myram Picker, Ltd., Surbiton, Surrey, has just launched a new hair spray product for the British market.

Pallet Shaker Is Introduced For Aerosol Products



Photograph gives an idea of size of pallet shaker. Instrument panel is at right.

An automatic pallet shaker designed to shake up to 2400 cased aerosol can in one operation has been developed by Gaynes Engineering Co., 1646 W. Fulton Street, Chicago. A complete pallet load is put in place by fork lift operator who presses only one button to actuate a complete cycle initation side pressure, top pressure, and front gate closing to lock the load. The drive motor immediately begins the shaking operation and continues it for a predetermined length of time. When the sequence has been completed, the unit releases the pallet load, making way for another. Complete details on the pallet shaker, which is said to be in use by a major Midwest marketer of polishes and insecticides, are available directly from Gaynes Engineering Co.

•

Offer Gloss Controllers

"PHLATS," a new series of gloss controllers for clear and pigmented finishes, has been developed by LoBo Chemical Products Co., Bedford, Ohio. The line includes the following:

ure-PHLAT — for poly urethane finishes

so-PHLAT — for short oil alkyds

mo-PHLAT — for medium oil alkyds

la-PHLAT — for nitrocellulose lacquers

e-PHLAT — for epoxy esters

These products are the result of what is reported to be a unique method of dispersing a finely divided silica in a wide range of vehicles. They are designed to achieve a consistent uniformity of sheen in pigmented or clear satin finish formulation, and to eliminate costly grinding operations and insure non-settling and non-seeding in the most critical formulas. Technical data sheets and samples from production batches are available from the company.

•

Offer Shaker-Incubator

Labline, Inc., Chicago, has introduced a new development in controlled laboratory shaking with its new "Hot Air Shaking-Incubator, Model 3570." It is available in regular and a king size which holds up to 200 —20 ml. beakers or 162 —25 ml. Erlenmeyer Flasks, at temperatures up to 65°C.

Among the many uses of the unit are: for tissue cultures, general incubations, assays, fermentation studies, behavior of gels, stability of colloids, aging tests, controlled precipitation tests, etc.

A feature is a removable, universal-type tray with handles that permit it to be loaded and unloaded at the bench. Stainless steel springs or clips are designed to hold assorted glassware simultaneously—from 20 ml. to 2,000 ml. in size. The shaking-incubator has a hinged "Cleer-Vue" Lucite hood to permit full visibility of test conditions.

. . . are your aerosols leaking?

If you stop and think for a moment, you know the answer to this question. They are indeed. It may not be a measurable amount if your aerosol is properly assembled and formulated with the correct components. It could be more serious than you realize if you are not constantly on guard and continuously testing.

We have created a new way to measure this leakage with extreme sensitivity in a relatively short time. The method requires additional development — but is of definite value immediately. To our knowledge, this method has never been revealed to anyone. We will send complete information to interested parties without charge or obligation to broaden its use and development . . . and to benefit our entire industry.

WESTERN FILLING
6425 Bandini Blvd., Los Angeles 22, California — Phone: RA 3-9177

If you would like a copy of the method — fill in the coupon below and mail to Pete Clapp, Western Filling, Los Angeles, California.

WESTERN FILLING CORPORATION
6425 Bandini Boulevard
Los Angeles 22, California

Please send me without cost or obligation your method of determining "aerosol leakage".

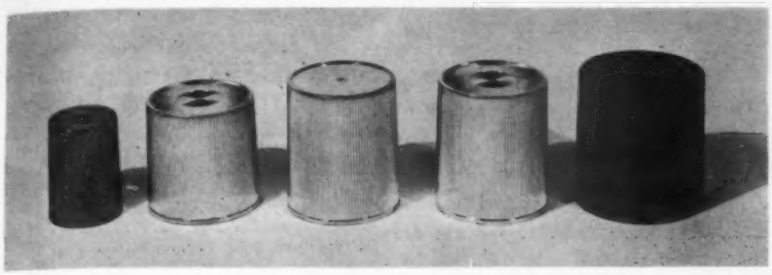
Name .....

Address .....

City .....

Zone ..... State .....

PharmarPlastics Expands Cap Line for Aerosol Bottles



PharmaPlastics, Inc., 205 S. Smallwood St., Baltimore 23, Md., has just expanded its cap line to include a wider range of sizes for uncoated glass aerosol bottles. The company can now offer caps to fit 1, 1½ regular, 1½ tall, 2, and 3 ounce Foster Forbes and similar bottles.

The caps, which give PharmaPlastics what is claimed to be "the only complete line of stock caps for uncoated bottles," can be ordered with either plain or "bullseye" tops in any color. Finish can be metallic gold or gold-plated finish, or in a wide variety of colors, tinsels, mottles, and ribs. Stock colors include black, brown, red, green, blue and any of the metallics. Plain top can be fitted with engraved insert or pricing top.

Offer Aerosol Wax Booklet

"Aerosol Formulations Based on Hoechst Waxes" is a new publication of Hostawax Co., 270 Sheffield Street, Mountainside, N. J. It contains a number of formulations for water-in-oil wax emulsions and includes additional formulas for both foam and spray polishes for floors, shoes, furniture and autos. It is pointed out that the water-in-oil formulations use the water to clean off water-soluble soil from the area to be waxed, and permit the wax to spread out better and go farther.

•

New Booklet on Alcohols

A new 80-page booklet, describing the properties and uses of industrial alcohols, has just been published by Union Carbide Chemicals Co., New York. Containing comprehensive data on 21 alcohols, from methanol to tridecanol, it includes information on physical properties; constant-boiling mixtures; specification limits; test methods; storage, handling, and shipping; toxicological properties; and selected literature references.

Special sections of the booklet describe ethanol in proprietary solvents, alcohols for chemical specialties, performances of alcohols in coatings, and performances of plasticizers. The chemical specialties section contains typical formulations for household cleaners, cosmetics, paint cleaners, and dishwashing detergents. The section of coatings includes resin solubilities, relative evaporation rates and dilution ratios, and similar coatings formulation data.

The alcohols described in this booklet are used in many industrial and consumer products, including: protective coatings, plastics, drugs, flavorings, perfumes, cleaners, polishes, photographic supplies, solvents, defoaming agents, and as intermediates for plasticizing, surfactants, lubricants, pesticides, and pharmaceuticals.

•

Tank Safety Pamphlet

The Manufacturing Chemists' Association, 1825 Connecticut Ave., N.W., Washington 9, D. C., is offering an eight-page pamphlet on recommended safe practices and procedures for entering tanks and other enclosed spaces. It emphasizes that hazards inherent in tank entry can be avoided, pointing out that the hazards commonly present include: toxic vapors in fatal concentrations; flammable gases with potential fire or explosion; lack of oxygen, causing asphyxiation; and many others. The pamphlet is available from the MCA office at 30 cents per copy.

½ MILLION AEROSOL CAN CRIMPS WITHOUT ANY SIGNS OF WEAR... anywhere

Model No. APCR1 Crimper Assembly for 1" Can Valves

Never before has an aerosol valve assembly crimping collet received such acclaim for performance and dependability. "Over 500,000 crimps so far," a leading product packager states, "and still going strong. No signs of wear anywhere on the plungers or crimpers." You can now avail yourself of a fine, reliable 1" crimping collet at low cost... in a new exclusive advanced design that has proved itself on the assembly line.

- no "hang-ups," no "pick-ups," no down-time for adjustments
- greater area of contact for maximum sealing
- far out-performs any other crimper in valve assembly speed and continuous operation
- thoroughly engineered and machined like finest precision tools
- made of specially selected materials properly heat treated, hardened and ground

If you are not using Royal Aerosol Crimpers, it is costing you money. Remember—we have never had a crimper returned—a fine testimonial of complete user satisfaction!

10-DAY FREE TRIAL
We are so confident of the quality and performance of this line tested crimper that we will gladly send you a unit prepaid for 10-day free trial. Convince yourself in your own plant.

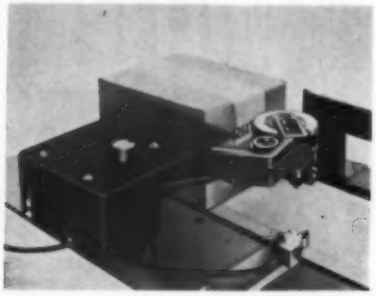
Write or Call Today for Full Details and Literature

A complete line of Aerosol Crimping Collets, Valve Nub Crimpers and Dip Tube Feed Collets

Aerosol Products

For A Better Crimp In Your Business

Corrugated Case Coder



Adolph Gottscho, Inc., Hillside, N. J., has announced a new streamlined automatic coder for marking corrugated cases on the side and/or rear in a single pass. Called "Model 251 Rolacoder," it attaches to a conveyor or case-sealer and does not require the use of any case-turning devices.

Operated by air pressure, the coder rolls its mark along the side surface of the case, then continues to repeat the same or a different mark on the rear surface as the case proceeds along its line of travel. The marking wheel, which accommodates quick-change rubber type, automatically retracts after each case has passed and repositions itself to mark the succeeding case.

Offer Quick Drying Vehicles

A new series of vinyltoluene copolymers has been developed by Degen Oil & Chemical Co., P.O. Box 5C, Jersey City 5, N. J. for use as inexpensive quick-drying vehicles in the formulation of aerosol enamels, hammertone finishes, and metal decorating finishes. Tradenamed the "Vintols," the copolymers are said to combine very rapid drying speeds, good gloss and hardness with excellent water resistance.

Degen Oil & Chemical suggests the following formulations for aerosol enamels using the copolymer:

BRILLANT SILVER AEROSOL ENAMEL

Material	*Parts*
1578 Aluminum[1]	50.0
Vintol 356-V	160.0
6% Calcium Napthenate	1.0
Toluol	129.0
Xylol	130.0
Methylene Chloride	30.0
Propellant #12	500.0
	1000.0

Set to touch — 5 minutes

GOLD AEROSOL ENAMEL

Material	*Parts*
Gold Pigment 450-A[2]	50.0
Vintol 960-V	160.0
6% Calcium Napthenate	1.0
Toluol	117.0
Xylol	118.0
Methylene Chloride	54.0
Propellant #12	500.0
	1000.0

Set to touch — 5 minutes

[1] Alcoa
[2] Metals Disintegrating

•

Peerless Registers Can Name

Peerless Tube Company has received registration (#710,728) for the tradename "Peerasol," applied to the company's one-piece, extruded aluminum aerosol containers.

These containers are unique in that their necks are "beaded" or curled inward with a patented process to give a natural holding action against the valve cup seat, which is interlocked with the curled neck and adhered with sealing compounds.

CAN CRIMPING GAUGE

The Pressure Pak Quik Check Gauge is designed for laboratory or production use for determining the internal diameter with valves having a 1" cup. The gauge is set to give an instant reading from 1.060 to 1.075 inches. The unit is 4 inches long and 1-1/4 inches in width. There is a standardizing adjustment on one leg of the unit. The gauge is ideal for quick determinations of internal crimping diameter without the necessity of using calipers. Each unit is supplied with a vest pocket holder. Also included is a standard checking tool set at 1.065" for calibrating the gauge.

Write for a free complete brochure on Aerosol Filling and Testing Equipment

$39.50

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Subsidiary of American International Development Corporation

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Order this important book now!

AEROSOLS:

Science and Technology

Edited by **H. R. Shepherd**

- **562 pages—$22.50**
- **Profusely illustrated**
- **Contains scores of formulations**

Send check and order to
Aerosol Age, Book Department
P. O. Box 31, Caldwell, N. J.

Packaging Seminar Is Scheduled by St. John's University

A SERIES of six two-hour sessions will make up a new Seminar in Packaging just announced by St John's University, Jamaica, N. Y. The seminar, one of the university's series of special educational programs, was arranged by the university's Colleges of Business Administration and Pharmacy in cooperation with the Packaging Institute. The program committee is under the joint chairmanship of Thomas Chambers, College of Business Administration, Dr. John J. Sciarra, College of Pharmacy, and James Field, of the Packaging Institute.

All sessions will take place on Wednesday evenings from 7 to 9 p.m., with the sessions slated to run from Oct. 25 to Dec. 6. The six sessions, with the subjects to be covered in each, are:

1. OCT. 25, 1961
   - Packaging and Marketing Potential in the 60's
   - Marketing and Development
   - Packaging Operations
2. NOV. 1
   - Paper and Paperboard
   - Glass Containers
   - Metal Containers
3. NOV. 8
   - Plastics (Basic Materials and Converted Packages)
   - Aerosol Packaging
4. NOV. 15
   - Production Line Operation and Packaging Equipment Selection
   - Operation
5. NOV. 29
   - Procurement and Specifications
   - Food Package Material Purchasing
   - Drug Package Material Purchasing
   - Shipping and Handling
6. DEC. 6
   - Packaging Regulations
   - Packaging Future

Gen. Chem. Names 2 Researchers

The appointment of two assistant technical directors has been announced by Allied Chemical's General Chemical Division, New York. They are Charles B. Miller and Dr. Curtis B. Hayworth, both headquartered at the General Chemical Research Laboratory in Morris Township, N. J.

Dr. Hayworth will serve as assistant technical director with responsibility for development research and planning research. With the division 17 years, he was director of development research for the past three years. Earlier, he served as assistant director of development research, as assistant manager of General Chemical's former Claymont (Del.) Development Laboratory, and as research chemical engineer in planning research. He holds a doctor of engineering science degree, an M.S. degree in chemical engineering from New York University, and a B.S. degree in chemical engineering from The City College of New York.

Mr. Miller will serve as assistant technical director with responsibility for laboratory research and special laboratory projects. With General Chemical 23 years, he was director of laboratory research since 1958. Earlier, he served as assistant director, and as technical supervisor for research in organic fluorine chemistry. He also held various positions at General Chemical Defense Corp. at Point Pleasant, West Va., which the company operated for the Government during World War II, and at General's (North Claymont) Delaware Works. He is an alumnus of Cooper Union in New York City, and holds a B.Ch.E. degree.

•

Toni Uses New Promotion

The Toni Co., Chicago, is using new fall promotion to sell "Adorn"

hair spray. Four plastic rollers for setting hair and a hair styling booklet will be offered free with the purchase of the product. National distribution of the promotion package is to be completed by early September.

The new "Adorn" offer will be launched by the largest television advertising program in the product's marketing history. Network nighttime shows will include the new Robert Young show "Window on Main Street," the "Loretta Young Show," and the "Miss America Pageant." The daytime network TV line-up will be "American Bandstand," "House Party" and "From These Roots." These will be supplemented by heavy TV spots in all major markets.

•

Bradley-Sun Moves Hdg.

The Bradley-Sun Division of American Can Co., New York, has moved its main office to U. S. Highway 22, Union, N. J. Previously located in nearby Hillside, the site was selected to "accommodate the division staff in new and improved quarters to reflect an increase in the volume of business." New Telephone number is MUrdock 7-2500.

MF Patented Trigger-Tip aerosol actuators

• Accepted!
• Proven Performance!

These are but a few famous Cosmetic Sprays successfully actuated with the new MF Trigger Tips. Fast, smooth, accurate and reliable control of the delicate fragrance is assured.

Only Trigger Tip has these features:

ADAPTABILITY
- Self contained.
- To metal and glass.
- Aluminum in brass and enameled finishes.
- 10cc, 16cc, 22cc, or 2-, 3-, and 4-oz. cans with 1" openings.
- For metered or non-metered valves.
- For regular or refillable units.
- Choice of shapes, styles, finishes.
- Production line prices.

PERFORMANCE
- Just press and spray.
- No cap to remove.
- Won't accidentally dispense.
- An integral part of the package.
- Lowers assembly costs.

While MF does not make valves and stock cans, we do offer design, production and merchandising know-how to combine all component parts into practical, economical, stylish packages. Model shop facilities available and small runs for market testing acceptable.

Look to MF for leadership in Cosmetic Containers, Closures, Caps, Fancy Jar Covers, Actuators, Flaconnettes, Funnels, etc.

Phone Weehawken, N. J. • UNion 6-1277 for samples and prices, or write Dept. AP

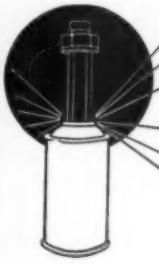
MF Metal Fabrications Inc.
202 Cherry Street • Waterbury, Conn.

National Sales Agents • MONROE-DANFORD & CO., 974 Boulevard East P. O. Box 807, Weehawken, N. J.

The AMCO STANDARD 1" CRIMPING COLLET

Durable
Accurate
Economical

$65.00
WITH PLUNGER



1. Standard crimping collet for any size can with 1" valve mounting cup.
2. Manufactured to standards set up by CSMA; may be used as replacements for crimping jaws of most other manufacturers.
3. Collets and plungers made of special alloy steel and are matched in hardness to increase wear resistance of working surfaces; work fatigue is minimized at pivot area by controlled heat treatment.
4. Segments are precision ground to the true diameter in the expanded position to insure a uniform crimp.
5. Collets are manufactured to full crimp diameter for maximum wear.
6. Guaranteed not to pick up.

We'll be glad to send one for examination.

AEROSOL MACHINERY CO. MAKES A COMPLETE LINE OF STANDARD AND SPECIAL AUTOMATIC, SEMI-AUTOMATIC, AND LABORATORY MACHINERY FOR CANS AND BOTTLES

AMCO AEROSOL MACHINERY CO.
80A MAGNOLIA AVE., WESTBURY, L. I., N. Y.

The most economical way for a number of people within a single company to read Aerosol Age is by a group subscription.

Advise FDA Fund Reduction

The Senate Appropriations Committee has advised a reduction in the fiscal 1962 appropriation for the Food and Drug Administration, partly because of its approach to the Hazardous Products Labeling Bill, reported the July 31 issue of *Oil, Paint & Drug Reporter*. The Senate Committee, which in effect rules the purse strings of all major government agencies, has agreed to an appropriation of $22 million for fiscal 1962, which is $1,580,000 less than had been approved by the House and recommended by the White House.

OPD reports that Senator Lister Hill of Alabama, chairman of the Senate Committee, "made no secret of the Committee's dissatisfaction with the 'manner in which the agency has been operating'." *OPD* suggests that vocal and written protests to the FDA over the proposed regulations to the Federal Hazardous Substances Labeling Act may have been extended into strong pressure on the legislators. Unanimous opposition to the measures has been expressed by Southern turpentine producers, by the Chemical Specialties Manufacturers Association, the Manufacturing Chemists Association, and many other organizations.

In its report to the Senate, the Appropriations Committee acknowledged the FDA's new duties to oversee consumer products, but pointed out "The administrative procedures adopted to carry out some of these responsibilities are questionable, and while the Committee realizes the need for strengthening and improving the agency, it must be done in a practical and orderly manner. Accordingly the Committee, has denied $1,580,000 of the budget estimate, being unable to subscribe to the manner in which the agency has been operating."

•

Chicago SCC to Hear Becher

Dr. Paul Becher, of Atlas Chemical Industries, Wilmington, a well-known authority on emulsion chemistry, will speak on the "Present Status of HLB" at the Sept. 12 meeting of the Chicago Chapter of Society of Cosmetic Chemists. The meeting will be held on Tuesday, Sept. 12 at Henrici's Restaurant in the Merchandise Mart.

•

Can Makers Launch Program

Members of the Can Manufacturers Institute, through their local plant and sales executives, are now actively engaged in telling the story of their industry and its products to home-town consumers via a novel "Do It Yourself" community relations program.

The Public Relations Committee of CMI has prepared a kit, entitled "Your Key To Community Relations," and especially designed for local media. It contains suggested newspaper stories, radio scripts, speeches and other material that can be effectively used by local plant personnel in carrying out a continuing community public relations program.

Peerless Issues Newsletter

"The Peerless Report" is a new publication just issued by Peerless Tube Co., Bloomfield, N. J. for its stockholders, customers, suppliers, and employees. The first issue of the publication, which contains stories about recent developments in metal tube and aerosol packaging) as they relate to the cosmetic, toiletry, drug, pharmaceutical, and other industries) began in August. It is available without charge from the company at 58 Locust Ave., Bloomfield.

•

Colgate Readies Fluoride Prod.

The Colgate-Palmolive Co., New York, last month announced that it is test-marketing a new fluoride toothpaste in the Texas area. Named "Cue," the stannous fluoride product is said to be the result of considerable research to control the problems of stability in stannous fluoride dentrifices and to give the consumer a fuller measure of fluoride benefits.

SNOW from a SOLID STICK

All the solids are formulated in this single stick which you simply drop into your container before adding your propellant and valve.

You get these important advantages:

- Amazingly simplified production process. No dust or boil-over. No mixing of powders.
- Gratifying savings in costs.
- Precision cold or pressure filling.
- Standard colors are WHITE, RED, and BLUE. For special colors, please send sample for matching.

For further information and samples, write to

BALTIC CHEMICAL CO., INC.

115-119 Fourth Ave., Brooklyn 17, N. Y.

NEvins 8-6401

• LICENSED UNDER PATENT 2,764,454

Aerosol "Spray Gun" Given Good Reception at Dutch Fair

Sprayon Products, Inc., Cleveland custom filler, reports that its "Jet-Pak Spray Gun" has been given a good reception at the International Housewares Fair, held recently in Amsterdam, The Netherlands. Held at the City's new R.A.I. Exposition Hall, the Fair drew 420,000 people.

Elastoforce, Ltd., of the Netherlands, Sprayon distributor for the Benelux countries, reports that public interest and sales results at the Jet-Pak exhibit were "very encouraging". All Sprayon exports are handled by Pegasus International Corp., New York, from that company's eight offices in the major trading centers of the world.

The Jet-Pak is distributed in the U. S. through regular hardware, paint, and art-supply channels, and through mill supply houses for industrial use. It retails at $2.95 for the complete unit, with a price of $1.79 for the refill propellant can. Each

refill unit is said to spray up to one quart of material.

•

MS&D Builds in Australia

Merck Sharp & Dohme International, a division of Merck & Co., Inc., Rahway, N. J., has announced it will build a new $1 million pharmaceutical plant in Australia at the site of its chemical plant in South Granville, a suburb of Sydney. The company's eight-year-old pharmaceutical plant in nearby Fairfield has been outgrown and will be sold, according to Dr. A. T. Knoppers, international division president.

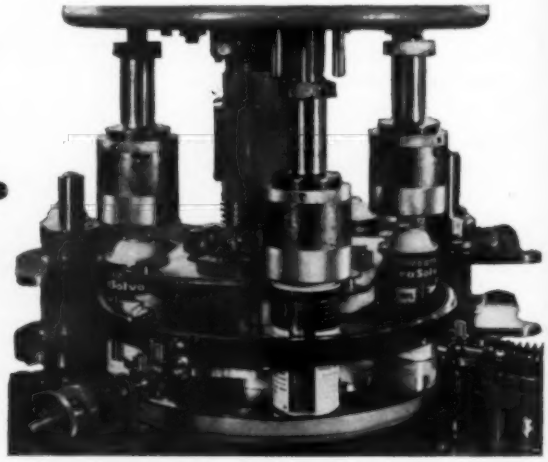
"The new plant will provide capacity for new drugs which we expect to introduce in Australia in 1962, as well as for increased output of our present products. It is designed to permit a planned five-year expansion of our line," Dr. Knoppers said. He reported that construction will start immediately on new buildings for pharmaceutical production, warehousing and administration.

•

Testa Joins Dewey & Almy

Anthony J. Testa has joined the Dewey and Almy Chemical Division, W. R. Grace & Co., Cambridge, Mass. as a chemist in the Container and Chemical Specialties Division. He received a B.S. in chemistry from Boston College in 1960 and an M.S. in chemistry from College of the Holy Cross this year. He will be engaged in research on container sealing compounds.

CRIMPING OVER 1,000,000 CANS... and going STRONG



A recent customer reports the new CAPEM Automatic Rotary Crimper for Aerosol Valves delivers more than a million cans without a sign of jaw or plunger wear or misalignment. The crimper assembly holds well within crimping tolerance throughout the entire run.

The machine features a completely mechanical operation . . . no *air* required. During the crimping operation, a mechanical plunger drops over the valve and expands 6 precision tooled segments for crimping contact. When the plunger retracts, the segments snap back into position for positive release of the can *before top pressure is released.* The crimping operation is further protected by Consolidated's built-in accuracy of container handling and centering, with automatic pre-seating of unseated valves.

Crimper jaws are adjustable to provide depth of crimp desired. The machine, with adjustable turret, can be easily set for proper crimp height and top pressure.

The Model C-4-SC, 4-spindle operation shown, will handle any size can with standard 1" valve at speeds of 110 to 120 containers a minute. Faster six and eight spindle machines are available.

For complete information, write Sales Manager

CONSOLIDATED PACKAGING MACHINERY CORPORATION

A Subsidiary of International Paper Company

1400 WEST AVENUE • • BUFFALO 13, NEW YORK

SEE THIS NEW CAPEM AUTOMATIC ROTARY CRIMPER AT THE PACKAGING SHOW NOVEMBER 7 to 10 DETROIT

A New Valve

(*From Page 42*)

especially effective for dispensing water-based or high-water-content products (into which the propellant is not soluble), as well as for paints.

It is obvious that the basic aim of the aerosol paint package should be to provide a well delivered and even coating of the product—a function performed almost entirely by the valve. In my opinion conventional aerosol valves fall short in this area since they often permit paint to flow down the sides of the can or provide a generally uneven coating.

The actuator button shown in Figure 4 and 5 will provide an oblong

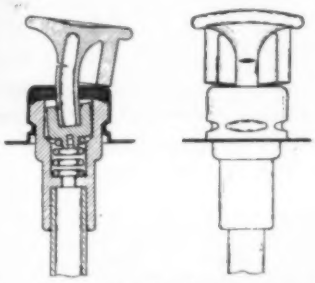


Figure IV—Section drawing to show working of valve and button. When button is pushed down, stem inclines backward, opening spray nozzle. Opening becomes narrow at both ends, so that spray jets out (surrounded by propellant) on both sides.

spray with which it is possible to paint just as one would with a brush or roller. It has been determined that the ideal spray patterns for paints should measure 15 mm wide and 200 mm long, and this actuator provides just such a spray pattern without the messiness of dropping paint from the nozzle or leaking down the can side. With this actuator and the valve described above an ideal spray device for aerosol paints is obtained.

To further refine the package, a lip-shaped nozzle has been designed especially for paints. When this button is used, twice or three times the painting area may be covered by one dispenser as compared with that provided by a conventional button attached to the same dispenser, even though the content is equal.

Though obviously designed with paints and similar aerosol applications in mind, it would be a mistake to think this valve-actuator combination may be used for only these products. For any spray application utilizing a special spray pattern (window cleaners, residual insecticides, certain pharmaceuticals, etc.), this device might be expected to enhance the mechanical working of the entire package—and hence, the satisfaction of the purchaser.★

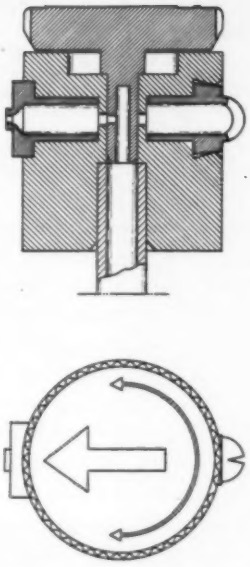


Figure V—Actuator has two differently shaped openings Lower drawing shows how one opening is round, but other is in mouth shape to make wide oblong spray. The change from one opening to another is made easily by turning button 180°.

Aerosols in Review

(*From Page 44*)

in the *Journal* by Dr. Manuel E. Paniagua, of the Asociacion Puertorriquena por Bienestar de la Familia, Rio Piedras, P. R., and Henry W. Vaillant and Clarence J. Gamble of the Population Studies Unit of the Harvard Medical School.

Aim of the study was to determine a practical index of how much pregnancy rates might decrease in a general population where the method

Mettler

PRECISION SCALES

FOR FAST, ON-THE-LINE CHECKS OF THE FILL

Ease of operation, speed and rugged construction make them the perfect tool for quality and production control.

Built-in taring device permits easy taring of empty containers.

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Write to us today for full description of the modern **METTLER** *precision scales.*

Perfumed with Mother's insecticide I will certainly impress him ! . . .

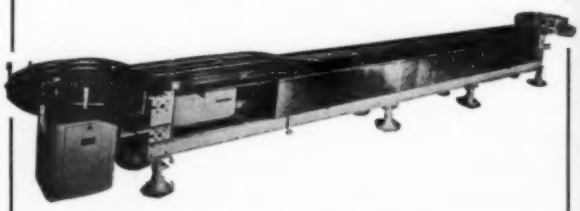
PERFUME COMPOUNDS FOR AEROSOLS

DE TRÉVISE

42-48, Rue de la Reine Henriette — COLOMBES (Seine) FRANCE

Test Your Aerosols Automatically

with ISLAND'S Styl-O-Matic Heat and Leak Test Tank



Available in single or double chain widths for 30 up to 120 containers per minute or up to 200 per minute with increased length . . . stainless steel Rex Table Top chain . . . cans are prevented from slipping on the decline or incline by magnets attached to the chain track . . . tank available in heavy gauge stainless steel or hot dipped galvanized . . . available with Rotary Surge Table infeed and discharge . . . available with special hood having stainless steel screen on one side and shatterproof sliding glass doors on the other side . . . also available with water recirculating pump. Write for complete details, Dept. AA-9.

Serving Industry 20th Year

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is offered without charge. Among 142 low-income urban women in Puerto Rico, it is reported, use of the Emko foam product resulted in a decrease from 80 pregnancies per 100 couples per year of exposure to 29. After 12 months of use this was further decreased to 17 pregnancies per 100 couples.

The authors of the report suggest that even these good results might have been improved upon but for failure to use the foam correctly or to use it each time sexual intercourse took place. They further point out that the women in the study were not actively seeking contraceptive help and showed varying degrees of desire for it.

•

COSMETIC and other advertisers to the teen-age market have a "Salvador Dali image" of this marketing group, suggests Dr. Shoi Balaban Dickinson, research consultant for *Teen Magazine*, in an interview in the June 16 *New York Times*. Most adults, including advertisers, he charged, believe mistakenly that teenagers are "nonconformists," when in fact they may well be the "most conformist" group in society today.

Among Dr. Dickinson's findings are these:

1. Rather than being sophisticated or tolerantly liberal in their views, most are conservative and their efforts at rebellion are kept within rigidly defined areas.

2. It is a mistake for advertisers to emphasize the exclusiveness of their product, since a teen-ager tends to want to do just what every other in his age group is doing.

3. Teen-agers "resent and resist advertising that overstates the value of the product or makes false claims about it." They tend to look on advertising "as an occult and evil force, not unlike smog."

4. Advertisers with an eye to the teen-ager are making a serious mistake when they look back to their own youths in building an approach. Drastic changes in society make such comparisons very ill advised.

•

MANUFACTURER - PHARMACY relations are "sore points these days in the U.S. drug industry," an article by Milton Moskowitz declares in the June issue of *Drug and Cosmetic Industry*. Quoting a leading drug producer who said "We have a Twentieth Century manufacturing process harnessed to an Eighteenth Century distribution system," Mr. Moskowitz suggests that the mounting criticism of the drug industry over the past two years has aggravated the situation.

"Much of this criticism has centered about the allegedly high prices of prescription drugs. A prime factor in the price level of drugs is the 40% mark-up taken by the pharmacist, but this has usually been glossed over. It is the manufacturer who has borne the brunt of the attack. And the manufacturer, of course, cannot turn around and point an accusing finger at the drugstore, since he is almost wholly dependent on the drug store for the sale of his products."

Mr. Moskowitz reports this high profit margin, coupled with the fact that less than 10% of prescriptions today require any compounding, obviates the old necessities of soda fountains and similar non-drug sidelines. "Few of our merchandising institutions have shown more resistance to change than the local drugstore," he points out. "For many years we have been undergoing what has been widely acclaimed as a 'marketing revolution', involving low-margin retailing of a mass volume of goods. This has killed off thousands of high-margin mom and pop' stores and resulted in the supremacy of the huge self-service supermarket. Europeans have traveled here in droves to study this development, hoping to introduce these practices in their own countries as a spur to the economy. But, had they looked around, these

SCREW on TOP
for GLASS and METAL
AEROSOL CONTAINERS
Used to make refillable glass and metal Aerosol Containers
Will fit coated and uncoated bottles. If you have a special bottle send a sample to make sure of fit.
FULL LINE of LAB EQUIPMENT
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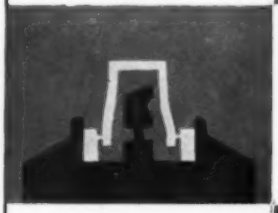
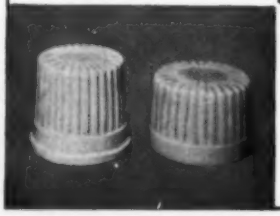


Tamper-proof caps sitting inside or outside

Cover caps
55 x 40 mm
32 x 24 mm



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— Germany —

could have seen existing side- with the supermarket the iquated drugstore, selling just as uropean stores sell. Between 1948 nd 1960, while food sales in the ountry were climbing steadily upwards at a spectacular rate, the number of stores selling food actually declined sharply, falling from 504,439 to 332,490. During this same period drug sales were also moving ahead at a vigorous pace — but what happened at the retail level? There were 55,796 drug stores in the country in 1948; today there are 58,500.

"One of the cardinal virtues of the American economic system is supposed to be competition. The supermarket thrives by offering food at lower prices. The discount houses have flourished with this technique. In the appliance field, it is becoming increasingly rare for something to be purchased at list price. But as everyone knows, the drugstore is the last stronghold of 'fair trade'. Drugstores don't compete on price and they consider it dirty and immoral for anyone to do so."

•

THE NEW British aerosol coffee product, "Kenco" Iced Coffee Concentrate, is written up in some detail in the May issue of *British Packer*. A product of the Kenya Coffee Co., the ingredients are actually prepared from extracts of coffee, fig, caramel, and saccharin. Packaging techniques were developed jointly by Kenya Coffee, Metal Box Co., Ltd. (supplier of the Precision valve and can), and Aerofill, Ltd., supplier of the filling equipment.

"A special food grade lacquer system was used for internal coating of the tinplate and, to avoid the risk of undesirable organisms forming, the product had to be filled while hot. For sealing the cans an Aerofill vacuum crimping machine which draws a predetermined degree of vacuum before accomplishing the seal was used. This involved a very accurate adjustment of the degree of vacuum used, since if the pressure on hot coffee is dropped too much below atmospheric, it boils and the vacuum pump draws off steam and coffee extract. An exact balance therefore had to be maintained so that the maximum permissible vacuum could be used.

"The coffee is filled on an Aerofill semi-automatic product filler which uses volumetric metering by means of a piston-type metering cylinder. After the valve has been applied, a nitrogen filling unit is used to gas the package."

The article says the new coffee package is being marketed in all Kenya Coffee Houses and John Gardner Supermarkets. ★

PI Drug Survey

(*From Page* 38)

was given as the reason for 11 of the companies doing their own filling, but of these five registered firm opinions that the custom filler can do it more *economically*. Three companies expressed the belief that filling machinery is not adequate, two that it is not fast enough.

Turning to merchandising, the survey uncovered 15 respondents who felt that retailers do not effectively explain aerosol attributes to customers, with only two voting affirmatively. As to whether retail outlets give more prominent space to aerosol proprietaries than to conventionally packaged products, ten registered "no" answers, 7 "yeses," and the rest didn't know. Eight of the respondents suggested that salespeople must be educated further.

On the basis of the traditional aerosol selling points (cleanliness of product throughout use, reduction of cross-infection, thoroughness of application, speed of application, elimination of wastage of product, and ability to reach body areas normally hard to reach) the pharmaceutical marketers voted overwhelmingly in favor of the aerosol. As to one typical "crystal-ball" use advocated for the aerosol, opinion was divided so sharply as to leave serious doubt as

to whether aerosols might someday replace injections for systemic applications.

There was also a split vote on the question, "Considering all factors, are aerosols economical?" Ten voted affirmatively, nine against.

Specific product use suggestions for the aerosol brought these reactions (with affirmative votes):

Burns—22
Insects Bites—20
Skin rashes—20
Athlete's Foot—20
Acne—13
Diaper rash—15
Eye application—6
Nasal sprays—15
Dental mouth sprays—17
Respiratory tract products—18
Vaginal products—19
Anus medications—13
Vitamins and other oral products —13
Ear sprays—13
Air sanitizers—23
Hospital cleaners—19
External analgesics—20
Lung treatment inhalants—16
Systemic drugs not inpurious to lungs—10
Surgical dressings—18
Post-operative sutures—8
Sulfa during surgery—16

Container Leakage

(*From Page* 25)

laboratory-filled containers. The leakage rates observed are shown in Table I.

Time After Gassing	*Average Leakage Rate-Grams/Year*
One Day	0.04
One Week	0.074
Two Weeks	0.056
Five Weeks	0.077
Eight Weeks	0.035
Thirteen Weeks	0.034

We have also attempted to measure the hydrocarbon content of foam samples taken from containers. Our aim was to develop a method of determining foam quality without measuring apparent foam density. So far, this work has not proved accurate enough to be useful in quality control. The estimated error is of the order of $\pm$ 5% which is less accurate than our present gravimetric control techniques. From our experience we are inclined to ascribe this error to the non-homogeneity of samples of foam. In other words, we were not able to obtain successive 2 or 3 ml. samples of foam which contained the same amount of propellant. If determination of the propellant content of foam neeed not be obtained with greater precision than 10%, this can be done using small samples of foam and the FIAD unit. Our procedure was to place known weights of foam on a watch crystal located inside a jar equipped with a closure like those used in the leakage tests. Foam breakdown was accelerated by means of a drop or two of dilute sulfuric acid. Gas analyses were run after an hour or two.

Summary

A method of measuring propellant leakage rates has been described. It has been shown that the procedure gives excellent reproducibility. Examination of over 1,100 three-piece containers from regular production indicates that approximately 90% of the leakage rates are below 0.04 grams per year. None of the leakage rates exceeded 0.4 grams per year. Leakage of containers appears to reach a steady state within a week or so after filling. Application of the technique to the measurement of the quality of foams is discussed.★

Residual Sprays

(*From Page* 28)

provide that the application should be repeated as often as necessary to maintain effective control.

(c) *Houseflies, Wasps, Mosquitoes.* Thoroughly spray selected surfaces such as doors, around windows and areas frequented by these insects. The control of these pests outdoors or for preventing entry into the house should provide for thorough spraying of screens, window frames, doorsills and selected areas of porches where these insects tend to alight or congregate. Repeat applications as necessary to obtain effective control. In the case of wasps, spray the nests after dark when all the insects have returned to the nest.

(d) *Fleas and Brown Dog Ticks.* Make applications to infested areas around baseboards, wall cracks, sleeping quarters of pets and localized areas of floors and floor covering. Thoroughly spray the sleeping quarters of animals and place fresh bedding in the animal quarters following treatment. Do not treat animals with this formulation. Liberal and repeated

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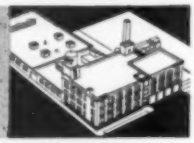

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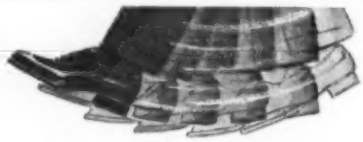

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applications to infested areas are desirable in all cases.

(e) *Bed Bugs.* Thoroughly spray the bed, springs and mattress, as well as the baseboard and wall cracks about the bedroom. Repeated applications are usually necessary for good results.

(f) *Spiders, Centipedes, Scorpions.* Thorough spray around doorsills, window frames or other areas where these pests may enter the dwelling. Frequent repeated applications may be necessary for effective control. Also, spray corners, pipes, storage localities and other infested areas in the basement.

As is by now well known, all pressurized containers are required to bear warning or caution statements necessary to protect the public from injury. The cautions or warnings are quite varied depending upon the product used and its manner of use. A caution should be given to prevent contamination of food and food handling utensils.

Since many of these products contain petroleum distillate or other combustible substances, they should never be used in the presence of an open flame or heated surface. Containers should never be thrown into a fire or incinerator. ★

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Golf Tournament

(*From Page* 27)

of the day, an 80. Also for the hosts, Dick Monahon of Oil Equipment Laboratories, scored first low net—a 68—and Tom Morgan of Soap & Chemical Specialties had first low Calloway with a 74.

The second of the major prizes awarded went to George Moriarty of John H. Breck, Inc., with an 84 for low net score. F. N. Deakins of Glenbrook Laboratories was second. Low Callaway was a four-way tie won on the cut of cards by E. J. Correll, of Stanley Home Products, with second low Callaway going to Bob Crosby of Angelique. Kickers was a five-way tie shared by Robert Ferrin, Chas Antell, Fred Presant and H. R. Shepherd, Aerosol Techniques, William Peters, International Paper, and John Graham, Schering Corp. Mr. Graham won the prize on the draw of a card. Fred Fusee, of Avon, and J. Mangini and Tom Hogan of Clairol tied for second Kickers.

There was one repeater among the special prizes. Harvey White of Puritan Aerosol Corp., duplicated his 1960 feat of longest drive with a belt of 235 yards. Jim O'Reilly of American Can

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EDGERTON, WISCONSIN

came nearest to the pin on the specially designated par-3 hole..

Dan Rubinfeld's score of 139 was enough to win the high total gross prize and Rudy Beers of Aero-Chem won another special award for highest number of strokes on a single hole—24.

A total of 140 guests and hosts attended, with about 115 playing golf. A luncheon and golf was concluded by a banquet at which the prizes were awarded.★

Redbook Survey

(*From Page* 34)

News-Tribune; Fresno Bee; Honolulu Star-Bulletin; Indianapolis Star & News; Long Beach Independent & Press Telegram; Milwaukee Journal; Modesto Bee; Newark News; Omaha World-Herald; Phoenix Republic & Gazette; (Portland) *Oregon Journal; Sacramento Bee; Salt Lake City Tribune & Deseret News; San Jose Mercury & News; Seattle Times;* and *St. Paul Dispatch & Pioneer Press.* The *Denver Post* and *Wichita Eagle* cooperated since 1957 and the *Providence Journal Bulletin* since 1960. The *Washington Star* participated from 1956 through 1959, the *Cincinnati Times-Star* from 1956 to 1958 and the *Portland* (Maine) *Press Herald-Evening Express* in 1956 and 1957.

As will be seen by the above chart (Table I) from the *Redbook* report the percentage of women buying hair sprays went up nearly consistently in all the cities studied. The median average amounted to 28.9% in 1956, 38.7% in 1957; 43.6% and 43.8% in 1958; and 47.9% in 1960.

Regarding brand domination, *Redbook* has this to say: "Revlon and Helene Curtis hair sprays dominated this market completely, these two being the choice of the largest number of respondents in all but one of the cities surveyed between 1956 and 1960 while also sharing second position in almost all the others. Their relative standings, however, have changed. In 1956 Helene Curtis sprays were named by the largest number of respondents in 18 of 21 surveyed cities and were second in popularity in the remaining three. For the next three years, Revlon was the first choice spray in the majority of cities—13 out of 23 in 1957, 15 of 22 in 1958, and 15 of 21 in 1959 —while in 1960 the two brands were fairly evenly matched. In this year, Revlon and Helene Curtis sprays

TABLE IV

City	SECOND-RANKING BRAND OF HAIR SPRAY 1960	1959	1958	1957	1956
Chicago	Revlon	Revlon	Revlon	Revlon	Revlon
Cincinnati	a	a	Revlon	Revlon	Revlon
Columbus	Toni	Revlon	H. Curtis	Revlon	Revlon
Denver	H. Curtis	H. Curtis	H. Curtis	H. Curtis	a
Duluth-Superior	H. Curtis	H. Curtis	H. Curtis	H. Curtis	C. Antell Fuller
Fresno	H. Curtis	H. Curtis	H. Curtis	Revlon	Revlon
Honolulu	Revlon	Revlon	Revlon	Revlon	Revlon
Indianapolis	Toni	H. Curtis	H. Curtis	H. Curtis	H. Curtis
Long Beach	Breck	H. Curtis	H. Curtis	H. Curtis	Revlon
Milwaukee	Toni	Toni	Revlon	Revlon	Revlon
Modesto	H. Curtis	H. Curtis	H. Curtis	H. Curtis	Revlon
Newark	H. Curtis	Toni	H. Curtis	H. Curtis	Revlon
Omaha	Revlon	Revlon	Revlon	Revlon	Revlon
Phoenix	H. Curtis	H. Curtis	H. Curtis	H. Curtis	Revlon
Portland, Ma.	a	a	a	Revlon	Revlon
Portland, Ore.	Revlon	H. Curtis	H. Curtis	H. Curtis	H. Curtis
Providence	Revlon	a	a	a	a
Sacramento	H. Curtis	H. Curtis	H. Curtis	H. Curtis	H. Curtis
Salt Lake City	Revlon	Revlon	Revlon	Revlon	Revlon
San Jose	Revlon	H. Curtis	H. Curtis	H. Curtis	Revlon
Seattle	H. Curtis	H. Curtis	H. Curtis	H. Curtis	Revlon
St. Paul	Revlon	H. Curtis	Revlon	Revlon	Revlon
Washington	a	H. Curtis	H. Curtis	H. Curtis	Revlon
Wichita	Revlon	H. Curtis	H. Curtis	H. Curtis	a

[a] No survey this year.

EAST

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Chemicals, Cosmetics, Pharmaceuticals

RETAIL SALES OF HAIR SPRAYS

Type of Hair Preparation	*Total* (000's	*Through Drug Stores* (000's	*Through Food Stores* (000's
Spray Hair Fixatives			
1950	$ 500	$ 350	a
1951	2,000	1,400	a
1952	5,400	3,700	a
1953	16,270	10,780	$1,450
1954	29,930	18,240	4,010
1955	49,490	27,190	12,750
1956	75,050	37,570	21,260
1957	82,540	39,760	30,010
1958	81,500	38,370	30,980
1959	76,150	32,010	32,590

were the choice of the largest number of users living in nine cities and shared first place in two others. In the 21st city, Helene Curtis shared first place with Breck, the only other brand to achieve this rank. It should be noted, however, that the proportion of respondents mentioning the first-ranking brand of hair spray has dropped consistently since 1956. In that year, the median of users mentioning Revlon or Helene Curtis was 49%, a figure which dropped to 38% in 1957, 32% in 1958, 25% in 1959, and 20% in 1960.

Still further proof of the market strength of Revlon and Helene Curtis is a study called "Top Ten Brands Across the Nation: Annual, Comparative Consumer Inventory for 1960 Based on 1959 Buying Patterns in Ten National Markets," prepared by Dan E. Clark II and Associates, Inc. These findings are summarized in Table III.

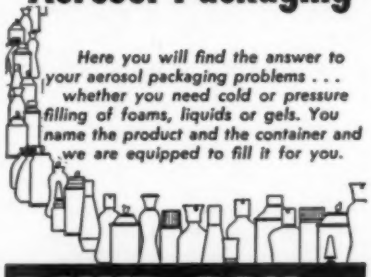
This market dominance for Revlon and Helene Curtis is reflected in a number of other surveys quoted by the *Redbook* study. However the April 1959 and 1957 "Beauty Habits and Product Preferences of Young Women Under 20" of *Seventeen Magazine* revealed surprising gains for Adorn hair spray, most of it at the expense of Revlon and Helene Curtis.

Brand of Hair Spray	*Per Cent Using* 1959	1957
	%	%
Adorn	22.9	6.2
Revlon	21.8	33.5
(Type not specified)	(10.8)	(13.4)
(Satin Set)	(5.8)	(17.9)
(Living Curl	(3.9)	(a)
Helen Curtis	18.4	22.6
(Brand not specified)		(15.5)
(Spray Net)		(7.1)
Breck	10.9	a
Max Factor	4.8	8.7
Nestle	1.6	1.9
Tweed	1.3	1.4
Hazel Bishop	1.2	2.2
Charles Antell	a	2.5
Avon	a	2.2
Helena Rubinstein	a	1.5
Other Brands	17.2	11.4
No answer	6.3	5.7

[a] Not shown separately.

The final portion of the Redbook study is devoted to a listing of a series of other studies and surveys which can be used to supplement the information on consumer buying trends and habits.★

Aerosol Packaging



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Munden to Shulton Post

The appointment of Elmer J. Munden to the newly-created position of field sales supervisor, Midwestern branch, has been announced by the Toiletries Division of Shulton, Inc., New York. He joined Shulton in 1952 as a sales representative and has most recently serviced accounts in Missouri and part of Kentucky.

•

Anti-perspirants

(*From Page* 29)

tional atomization that results is responsible for an unusually fine spray, which reduces the chilling effect of the aerosol.

Aerosol packages of anti-perspirants, equipped with the "Vapor Mix" valve, "Micro-Mist" actuator and "Seal Dome" closure and containing aluminum salts have proven themselves in extensive shelf and use testing, according to Mr. Beard. Where anti-perspirants normally clog an aerosol valve within two days when an ordinary closure is used, he said, that "Vapor Mix" valve has remained clear and easily actuated when the "Seal Dome" closure is utilized. He also suggested that the new "Seal Dome" closure should be equally effective when used with adhesives and any other formulations that tend to dry out and clog the aerosol valve.

Most underarm treatments are deodorants that mask or fight odors, rather than anti-perspirants which actually prevent perspiration, Mr. Beard explained. Anti-perspirants, which usually include a deodorant action, are astringents which block perspiration by closing the pores. The ideal under-arm treatment, beauty experts say, should be a combination of anti-perspirant, an antibiotic, a deodorant and a fragrance. This will be possible in aerosol packaging now that Risdon's "Vapor Mix" and "Seal Dome" have been developed, it was stated.★

•

Swiss Filler

(*From Page* 23)

recent expansion has been a newly equipped laboratory and an expanded research staff. As with most fillers, the laboratory does extensive development work, most of it with the chemists of customer companies. But equally important is the quality control work performed by the laboratory staff. All incoming raw materials and ready-formulated aerosol concentrates pass routine tests for water content, density, miscibility with propellant, purity, pH, etc., and are specifically checked against the requirements of the product. Also, many products have to be checked as to contents of active ingredients, and with so many different products to be filled many methods have to be available.

The laboratory also regularly cross-checks the filling operation in the plant. Here checks as to clarity and odor of product, product weight, propellant weight, crimp dimension, pressure, spray characteristics, etc., are made on any given product, as well as any additional tests which might be required for a specific product type.

According to Mr. Schmutz, quality control is emphasized so strongly by Aerosol-Service because of the comparatively small orders which make up the bulk of its business. "We find that this quality control and our experience are two of our most valuable selling assets."

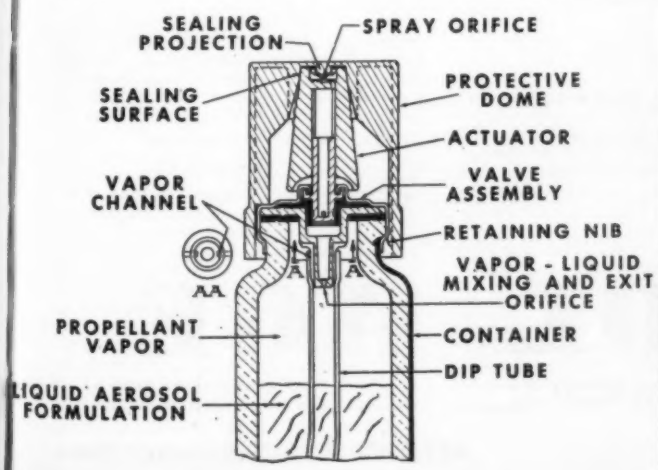
Speaking of sales, most of this is handled by Mr. Hirschburger, Mr. Schmutz, and Dankfried W. Hannich, purchasing manager. Other key men in the firm are Axel Marks, laboratory director; Egon Schneebeli, production manager, and Arnold Loeliger, equipment supervisor.★

•

TGA to Meet with TGMAC

The Toilet Goods Association last month announced that its 1962 annual convention will be a joint meeting with the Toilet Goods Manufacturers' Association of Canada. The joint convention will be held at the Chateau Frontenac, Quebec, June 24-29.

The TGA pointed out that the recently concluded arrangements do not include the Scientific Section, which will hold its meeting in New York on May 9.



Diagrammatic cross-section of valve-cap combination shows how closure clamps down around valve shoulders and actuator to effectively seal off actuator orifice from air.

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OCTOBER

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BUYER'S GUIDE

ISSUE OF AEROSOL AGE

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Containers
Valves
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Labels
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Aromatics & Perfumes
Pharmaceuticals
Emulsifiers
Deodorants
Lanolin
Custom Fillers (for the trade)
Aerosol Products (filled containers for the trade)
Consultants
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AEROSOL AGE

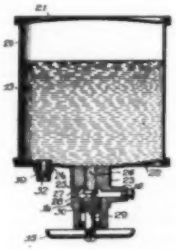
CALDWELL **CApital 6-5520** **NEW JERSEY**

New Aerosol Patents

Listed below is a brief review of recent patents pertinent to the aerosol and related industries.

Complete copies of these patents may be obtained by writing to the Commissioner of Patents, U. S. Patent Office, Washington 25, D. C., and remitting 25 cents for each copy desired.

2,991,629. TIRE INFLATING DEVICE. Issued July 11 to Eugene L. Rose, Highland Park, Ill., assignor to Gene Rose Co., Inc.



A package comprising a container adapted to hold fluid under pressure, said container having a portion of its volume filled with volatile liquid having a vapor pressure of at least about 5 p.s.i.g. at 0° F. and not more than 200 p.s.i.g. at 100° F., said volatile liquid containing a liquid plasticizer for rubber dissolved therein, the remainder of said container being filled with a substantially non-condensable gas so that the gas pressure within the container is from about 50 to about 110 p.s.i.g. measured at 0° F.

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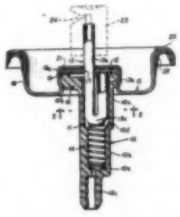
2,991,044. AEROSOL VALVE ASSEMBLY. Issued July 4 to Joseph Briechle, New Canaan, Conn., assignor to Scovill Manufacturing Co., Waterbury, Conn.



An aerosol dispensing valve assembly, comprising a tubular housing having a valve chamber, an elastic sealing washer seating on top of the housing, a container closure member having a central tubular part embracing the periphery of the washer and the periphery of the housing at the top thereof and holding said parts in fluid-tight engagement, a J-shaped open-ended tubular valve member in said chamber with the bight of the J innermost, the arms of said J-shaped member being substanially parallel and of unequal length with the long arm extending outwardly through and slidable in an opening in the washer with a fluid-tight fit, a spring in the valve chamber normally biasing the valve member outwardly to seat the open end of the short arm into sealing engagement with the washer eccentrically to the axis of the long arm, and the container closure member having a flange overlying the seating positon of the short arm on the washer and terminating in encircling relation to the long arm.

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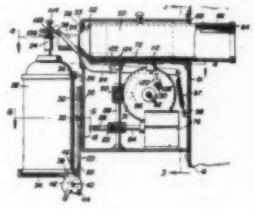
2,991,912. SPRAY APPARATUS. Issued July 11 to Anthony J. Thomas, 10113 S. Beverly Ave., Chicago, and Joseph Thomas, 4948 S. Lamb Drive, Oak Lawn, Ill.



In a unit for discharging discrete quantities of spray into a duct a support, an adjustable holder carrying a pressurized liquid container, said container having a discharge valve and outlet, said holder fixed to said support, a lever pivoted to said support having adjustable engaging means on one end thereof positioned proximate said discharge valve for engagement therewith, an electric motor, means including a rotary wheel operatively connected with and directly driven by said electric motor for oscillating said lever, said lever oscillating means also including a cam on one face of said rotary wheel engageable with a portion of said lever to pivot said one end of said lever into engagement with said discharge valve and cam means on said holder pressing said container against said lever.

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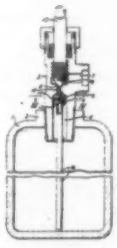
2,991,918. TOP VALVE FOR A PRESSURE VESSEL. Issued July 11 to George R. Allen, 21 Woodland Drive, Pittsburgh 28, Pa.



A top valve for a pressure vessel containing liquefied gas and vapor under pressure, the valve comprising a body provided with an inlet passage extending upward from its lower end and having a restricted upper portion forming a downwardly facing control seat, the upper end of the passage forming an upwardly facing main seat, said body having an outlet above said passage and connecting with it, a main valve closure normally engaging said main seat, means for raising the closure to open the valve, a pin of smaller diameter than the restricted portion of the inlet passage connected to the bottom of the closure and extending down past the control seat, a control valve closure secured to the lower end of the pin and normally spaced from said control seat to permit vapor in said vessel to flow up past both seats when said main closure is raised to less than its maximum distance from the main seat, and a tube depending from the control valve closure and adapted to extend down to a point near the bottom of the vessel, said control closure being provided with an opening connecting the space above it with said tube, wherby upon raising the control valve closure into engagement with the control seat expanding vapor in the vessel can force liquid up through the tube and out of said valve outlet.

•

2,993,866. AEROSOL GLASS CLEANER. Issued July 25 to Thomas Hunt Vaughn, Tenafly, and William Wendell Wellman, Jersey City, N. J., assignors to Colgate-Palmolive Co., Jersey City.

A package glass cleaner comprising a valved container containing a clear nonflammable solution of 0.1% to 4% by weight of a normally liquid silicone having a viscosity in the range of about 10 to 200 centistokes of the formula:

$$Si_nO_{n-1}R_{2n+2}$$

in which R is selected from the group consisting of methyl, ethyl, propyl, butyl, amyl, hexyl, heptyl, octyl, decyl, dodecyl, vinyl, allyl, phenyl, toluyl and naphthyl and n is an integral number, 12 to 35% by weight of an alcohol from the group consisting of ethanol and propanol, 5-25% by weight of a low vapor pressure fluorochloro hydrocarbon selected from the group consisting of trifluorotrichloroethane and monofluorotrichloromethane, and a higher pressure propellant selected from the group consisting of tetrafluorodichloroethane and difluorodichloromethane constituting substantially the balance of the composition, the pressure in said container being below about 60 lbs. per square inch gauge at 70° F.

•

2,991,917, METERING VALVE ASSEMBLY HAVING STEPPED-BACK PLUNGER. Issued July 11 to Lawrence T. Ward, Northampton County, Pa., assignor to V.C.A., Inc., Bridgeport Conn.

In a metering valve structure for the closure of gas-tight pressure containers of the type including a valve body adapted to be sealed gas-tight to the container and having a channel through said body adapted to lead from the interior to the exterior of the container, a valve plunger slidably mounted in a portion of said channel, means actuatable from the exterior of the container for sliding said plunger, and a first valve means actuated by said plunger normally sealing said chan-

nel gas-tight and unsealing when said plunger is moved from a predetermined position in one direction in said channel; the improvement comprising a reservoir cavity in said channel inward of said first valve means and second valve means actuated by said plunger normally open and sealing said channel gas-tight inward of said cavity when said plunger is moved to a predetermined position in the same direction in said channel; said second valve means being so proportioned and arranged that in passing from its open state to the state of gas-tight seal it passes through an intermediate state of liquid-tight but not gas-tight seal of appreciable duration, said second valve means comprising an annular valve seat of predetermined diameter and a three-step cylindrical rod actuated by the plunger arranged concentric with and normal to said seat with the lowermost cylindrical step within said seat when said valve means is open, said lowermost step being of smallest diameter and clearing said seat sufficiently to permit liquid passage between it and said seat, the intermediate step being of intermediate diameter and introduced within said seat by motion of said plunger, the diameter of said intermediate step being such as to afford a gas passage but a liquid closure with said seat, and the outermost step being of largest diameter, the diameter of said outermost step being greater than that of said seat, whereby said outermost step may be pressed into gas-tight seal with said seat by actuation of said plunger.

•

2,991,896. REINFORCED GLASS AEROSOL CONTAINERS. Issued July 11 to William S. Glover, Vineland, and Joseph F. West, Millville, N. J., assignors to Wheaton Glass Co., Millville, N. J.

A container adapted to contain a product under pressure to be dispensed in aerosol form comprising a frangible bottle having a discharge opening, said bottle having lines and areas on the exterior surface of normal substantial continuity, a continuous sheath of elastically expansible plastic material freely overlying substantially the entire exterior surface of the bottle and secured to said surface in sealing engagement therewith only adjacent said discharge opening, said bottle having a plurality of spaced localized depressions underlying said sheath and forming therebetween spaced ridges, said ridges interrupting the normal surface continuity of said bottle where provided, to produce substantially point impact locations, said sheath being elastically expansible by said pressure when released upon explosive fracture of the bottle, said sheath having tensile and tear strengths to withstand the initial explosive force and when expanded having tensile and tear strengths operable within the elastic limits of said sheath to confine and retain said pressure and the fracture fragments of the bottle, and said sheath having at least one vent therein operable upon expansion of said sheath to gradually exhaust said pressure therefrom while still retaining therein the fracture fragments of said bottle.

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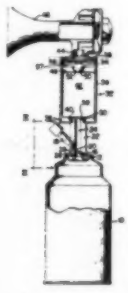
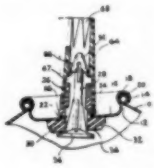
2,993,466. ALARM DEVICE. Issued July 25 to Morton Sklaroff and Theodore J. Brennan, Philadelphia, assignors to Robertshaw-Fulton Controls Co., Richmond, Va.



In a self contained temperature responsive fire alarm device the combination comprising a container, a supply of pressurized fluid within said container, outlet means on said container for discharging said pressurized fluid, reputable sealing means on said container outlet for preventing discharge of said fluid, temperature responsive power means for rupturing said outlet sealing means, fluid pressure actuated valve means on said container operable between open and closed positions in response to changes in a pressure condition to cause intermittent discharge of said fluid under pressure from said container, and audible signal means mounted on said valve means whereby intermittent discharges of fluid under pressure will actuate said audible signal means to cause intermittent sounding of said audible signal means.

•

2,992,760. DISPENSER VALVE STRUCTURE. Issued July 18 to Jerome M. Turk, Skokie, Ill., assignor, by mesne assignments, to Super Whip Valve Co., Chicago.



In combination with a container closure having an opening therethrough, a resilient tubular plug extending through said opening and having a flange engaging the inner surface of said closure, said plug being provided with a flat planar valve seat on said flange, a substantially rigid valve stem of lesser diameter than the internal diameter of the passage of said tubular plug, said stem being provided at its inner end with a valve, said valve comprising an annular disc having a flat outer annular portion for engagement with the flat planar valve seat, said stem being provided on its outer end with a preformed spearhead comprising preformed engaging surfaces extending laterally of said stem and then extending upwardly and converging inwardly towards the axis of the stem, a slot formed in said spearhead, a separate nozzle insertable over and positioned on said tubular plug and having an annular shoulder adapted to be engaged by said engaging surfaces to provide a locking engagement with said nozzle and to prevent removal of said nozzle from said tubular plug, said slot in said spearhead to be compressed as said spearhead is inserted through the inner side of said tubular plug to permit said spearhead and engaging surfaces to pass beyond said shoulder and after passage to effect an automatic locking engagement with said shoulder, and a plurality of ribs extending from the top of the valve to the valve stem and being inclined inwardly toward the valve stem and terminating substantially below the upper end of said valve stem, said ribs serving to center said valve stem with respect to said plug.

•

2,993,469. AEROSOLIZATION AND COATING APPARATUS. Issued July 25 to William B. Tarpley, Jr., James Byron Jones, and John Straughn, West Chester, Pa., assignors to Aeroprojects, Inc., West Chester.

Aerosolization apparatus comprising in combination an upright shell nozzle means uprightly disposed within said shell for generating aerosol particles, said nozzle means including a liquid outlet concentrically disposed about a gas outlet, said outlet being directed upwardly, a liquid

(*Continued on Page 84*)

Professional Directory

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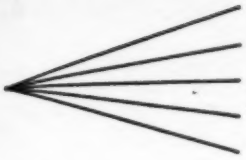

CLASSIFIED ADVERTISING

Address all classified replies to Box Number c/o *Aerosol Age*, PO Box 31, Caldwell, N. J. Rates for "Help Wanted" advertisements are 20¢ per word; minimum charge $3.00. Rate for individuals seeking employment is 5¢ per word, $1.00 minimum. Advertisements of new machinery, products and services accepted at the rate of $10.00 per column inch. Minimum space, one inch. Copy closing date, 10th of preceding month. *Checks must accompany all orders.*

SITUATIONS WANTED:

MECHANICAL ENGINEERING DESIGN and DEVELOPMENT — 17 years diversified experience, seven years recent experience with major aerosol valve and filling equipment manufacturer, broad knowledge of aerosol. Address Box 265, c/o Aerosol Age.

Chemist-Chemical Engineer. Experienced in quality control as analytical chemist; directed plant operation of chemical processes. Can set up small or large laboratory, check and/or supervise chemical control within plant; or do routine laboratory work. European education, fluent in six languages, and is 36 years old. Box 266, Aerosol Age.

HELP WANTED:

SALESMAN

Unusual sales opportunity open in Midwest territory with major insecticide raw material supplier. Must have knowledge of agricultural or household insecticide field. Salary open. Box 264, Aerosol Age.

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The Tiffany of the Aerosol Field

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Write or call Mr. Tanney
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STillwell 4-4413

Colton Elevates Lessig

Appointment of Carl Lessig as field service engineer for the New York area has been announced by Arthur Colton Co., Detroit manufacturer of filling and other machines for the food, pharmaceutical and chemical industry. A machine assembly foreman at the Colton Mancelona, Mich. plant for the past two years, Mr. Lessig previously was associated with the Hope Machine Co. in Philadelphia for 12 years as assembly foreman, until that company was purchased by Colton. In his new position, he will operate out of the Colton Eastern Branch office at 566 Grand Avenue, Englewood, N. J., under the direction of district manager Warren I. Smith.

•

Fuld Plans Expansion

A building immediately adjacent to its present manufacturing facility has been acquired by Fuld Brothers, Inc. of Baltimore, Md. The new building, when completed early in August, will house additional reaction kettles and related equipment used in the preparation of the maintenance products manufactured by the firm.

Alcolac Corp. Changes Name

American Alcolac Corp., Baltimore, has changed its name to Alcolac Chemical Corp. The new name has been selected to "more appropriately reflect the scope and nature of the corporation's activities as a manufacturer of chemical intermediates and surface active agents."

New Disinfectant Co. Formed

The R. M. Hollingshead Corp. and M. Sittenfield & Associates have announced the formation of the Synchem Corp. at 840 Cooper St., Camden 2, N. J. The new company will engage in research, development and marketing of chemical biocides and other specialties based on its patented quaternary ammonium compounds. These compounds, the company reports, are characterized by increased biocidal activity and sweet flavor, and are expected to find use in room deodorants, toothpastes and other aerosol and similar products.

Five Years Ago This Issue . . .

Back in September 1956, when *Aerosol Age* was just a few months old, these industry news stories made the headlines:

1. What was likely the first $1 million advertising campaign for an aerosol product was touched off by Bon Ami Co. for its "Jet Spray Bon Ami". It was also the first aerosol campaign in which television figured so prominently.

2. The Federal Trade Commission issued a formal complaint against a U. S. Packaging Corp., Bridgeport for "false, misleading, and deceptive claims as to the amount of product packed in 'Frosty Snow'. The FTC complaint charged that the company was packing 10.5 ounces in a 16-ounce can.

3. Western Filling Corp. announced that it doubled its volume in 1956, and was then operating three lines with a combined one-shift capacity of more than 75,000 containers. The company pointed to the beginning of can and propellant manufacture on the West Coast as evidence of the growth of the industry there.

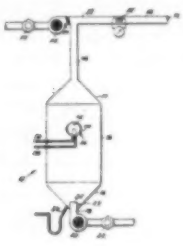
4. A survey of sales personnel in major New York department stores revealed an extremely limited knowledge of aerosols, even in those perfume departments where many units were being sold.

5. British aerosol production reached an estimated 8 to 9 million units in 1956, despite higher propellant prices.

New Patents

(*From Page* 82)

conduit in communication with said liquid outlet and a gas conduit in communication with said gas outlet, a barrier spaced above and facing said liquid and gas outlets, a



liquid particle withdrawal conduit connected to the upper part of said shell, and an upwarly directed gas impeller in communication with said shell beneath said nozzle means.

•

2,991,219. FLY REPELLENT. Issued July 4 to Willis Nels Bruce, Champaign, Ill., assignor to Lee Ratner, Miami Beach, Fla.

A composiiton for repelling insects comprising, as a repellent, di-n-butyl succinate as a synergist, a fatty acid material selected from the group consisting of oleic acid, sorbitan trioleate, sorbitan monooleate, linoleic acid, ricinoleic acid, propyl oleate, and benzyl oleate.

•

2,991,220. INSECTICIDAL REPELLENT. Issued July 4 to Willis Nels Bruce, Champaign, Ill., assignor to Lee Ratner Miami Beach, Fla.

An insecticidal repellent comprising a combination of from about 2% to about 99.5% by weight of di-n-butyl succinate and from about 98% to about 0.5% by weight of an organic phosphate insecticide selected from the group consisting of phosphorothioic acid O,O-diethyl-O-(2-isopropyl-6methyl-4-pyrimidinyl) ester, malathion, and O,O-dimethyl-O-(2,4,5,trichlorophenyl) phosphorothioate.

Trade Mark Applications

Applications for registration of the following trademarks were published in recent issues of the *Official Gazette* of the U. S. Patent Office. In not all cases are there strictly aerosol trademarks, however, many of the products listed below come within the category of those for which a possible future use in aerosols is foreseen.

REAL E-Z, for liquid chemical composition for use in starting fires. Filed April 6, 1959 by Cook Chemical Co., Kansas City, Mo., giving first use as Sept. 18 of previous year.

SAUCI and PERKI, both for professional size hair sprays and other beauty preparations sold only to beauty shops for professional use. Filed March 2, 1960 by Paula Payne Products Co., Charlotte, N. C., reporting first use October 1958.

QUICK SHAVE, for shaving cream. Filed April 29, 1960 by The House of Men, Inc., Chicago, with first use reported as Aug. 4, 1954.

COLORGROOM, for hair dressing. Filed July 5, 1960 by Brian-Lloyd, Inc., New York, giving first use March 3 of same year.

YANG-YIN, for perfumes. Filed July 15, 1960 by Jean Jacques Martinat, New York, claiming first use Feb. 14 of previous year.

HAIR-O-SOL, for hair shampoo. Filed Dec. 21 by H. Glay Glover Co., Garden City, N. Y. reporting first use Nov. 8.

SMAK, for liquid insecticide. Filed Nov. 28 by Chemical & Electronic Research Corp., Baltimore, with first use given as July 2, 1960.

MISQUE, for toilet waters, colognes, perfumes, suntan preparations and other cosmetics. Filed Dec. 10, 1959 by John H. Breck, Inc., Springfield, Mass., giving first use Oct. 30 of same year.

OREMORE, for medicinal preparation for the treatment of fungus, ringworm, eczema, athlete's foot, ulcers, insect bites, and stings. Filed Feb. 24 by E. Romero and Son, Port Acres, Tex., reporting first use Jan. 12.

FLOWER KING, for spray for providing luster to plant leaves and for plant mat and seeded flower mat. Filed Jan. 9 by Thermwell Products Co., New York, reporting first use May 15, 1960.

MISS HATTIE, for cosmetics, namely hair sprays, perfumes, toilet water, and others. Filed Dec. 21 by Hattie Carnegie, Inc., d.b.a. Hattie Carnegie, New York, giving first use April 1, 1958.

HOUSE OF FULLER (appearing on top of "F" crest with crown), for cosmetics and toilet preparations, including spray essence, deodorant mist, hair spray, foot spray, toilet water, beauty mist, and aerosol hand cream. Filed Jan. 26 by The Fuller Brush Co., East Hartford, Conn., reporting first use on or about Feb. 1, 1960.

SULFRIN, for essential oils incorporated as ingredients of perfumes, starch and starch preparations incorporated as ingredients of cosmetics. Filed Oct. 24 by Georg Dralle, Hamburg-Altona, Germany, giving first use as per German registration dated Feb. 10, 1958.

•

Fleuroma Promotes Kaufman

Fleuroma Inc., Long Island City, N. Y., announced last month the promotion of Dr. Jerome G. Kaufman to the position of director, chemical research and production. In his new position he will be in charge of integrating creation of new and original aromatic chemicals with pilot and plant production. Fleuroma produces aromatics solely for use in its own perfume compounds and specialties.

•

Ortho Appoints Shepard

J. P. Shepard has been appointed sales manager of Ortho Pharmaceutical Co., Raritan, N. J. He joined the company in 1949, last serving as Western regional manager.

Where There's Smoke . . .

(*Continued from Page* 19)

gory, is that greater effort be made to interest the Fire Commissioners and their working staffs in the scientific work of CSMA. Each time the CSMA meets in a particular city, special effort should be made to invite that city's key government personnel (from the Fire Department, the Health Commissioner's Office, etc.) to participate in pertinent technical discussions of the Aerosol Division Scientific Committee. Off-the-record conferences between chairmen of the aerosol committees and these city government personnel should serve to eliminate the "ivory tower" scientific thinking which apparently produced the New York City regulations and at the same time alert key people in the CSMA as to exactly what is bothering these city officials.

Both these ideas have merit, one as a long-range project worthy of careful study, the other as a do-now idea which should be pushed vigorously. Adoption of one or both would serve to eliminate legislative "surprises" of the kind recently sprung by the New York Fire Department.★

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N. Y. SCC Sets Meeting

The New York Chapter of the Society of Cosmetic Chemists will hold its first meeting of the fall season on Wednesday, September 13, at the Hotel George Washington, Lexington Avenue at 23rd Street, New York. The program will consist of a discussion of the "Legal Status of the Cosmetic Chemist" in his company affiliation. The rights and viewpoint of the individual and of management will be discussed by competent legal advisors and a question period will follow the formal presentation. The reception will start at 5:30 P.M. and dinner will be served at 6:30 P.M. in the "Regency Room" of the Hotel George Washington. Although the technical program is free of charge, the cost of the meal is $4.50.

Britain Ups Purchase Tax

Great Britain recently announced a 10% increase in custom and excise duties and in the purchase tax on many items in a move to reduce home consumption and stimulate exports to strengthen the pound. The move is aimed at reducing consumer spending on important items, and is expected to reduce United States exports of basic goods to Britain.

Spray Patterns

ALTHOUGH the Russians, according to our information, have not yet let the aerosol package filter down to the consumer market, they *are* using mechanically produced aerosol mists for agricultural uses. Something called an "AG-16" aerosol generator, designed by Vyacheslav Stepanov, is being used to create oily insecticide mists for orchards, grain barns and warehouses against insects and similar pests.

* * *

As will be seen by a prominent item in the "Aerosols in Review" column this month (page 43) the three-year-old hair spray controversy, supposedly settled by the FDA, may not be dead yet. Dr. Martin Bergmann, of St. Louis, who started the whole thing, indicates that he has additional case studies to bolster his case. ..

Some of the most pesky anti-aerosol advertising in years is being used to sell a product called "Perma Starch" on television. One commercial for the product boasts that it delivers "as much starch as six aerosol cans" and repeatedly stresses the "economy" of "Perma Starch," which is sold in a conventional non-aerosol sprayer.

* * *

Again on the subject of advertising, Gillette will spend a cool $4 million on advertising for the World Series. Though most of it will go toward selling the adjustable razor, some will go for "Right Guard" and the company's aerosol shave cream.

* * *

What may be the first one-shot valve for a non-fire extinguisher is being used to sell "Timor," aerosol insecticide in Britain. Consumer perforates the cap and permits insecticide to spray out in one shot. Glass bottle, with diptube, is being recommended mostly for picnics.

* * *

Don't worry about new blood coming into the aerosol industry. On pages 61 and 62 are stories about equipment and components now offered by three companies new to the aerosol business.

* * *

The newest version of the British Weights and Measures Bill, which is expected to have high priority in Parliament next year, makes special mention of aerosols. One provision states that aerosol packages must state the quantity by weight or measure of the ingredient, or total weight of ingredient and propellant.

* * *

From Nils Hellberg of Aktiebolaget Casco, Stockholm, a leading aerosol insecticide marketer, comes word that large size insecticides (32 and 36 ounces) are becoming increasingly important in Sweden. He writes that these giant-size units, which currently contain a higher insecticide percentage than they did formerly, currently dominate the Swedish agricultural market, and that most farmers in the that country apparently prefer them to conventional sprayers and other types of insecticide dispensing.

* * *

New efforts at passage of "fair trade" legislation during the current session of Congress have been dubbed by *The New York Herald Tribune* as "the same old salami." The *Trib* also levels a blast at the National Association of Retail Druggists, chief backer of the legislation.

* * *

A new study by Daniel Starch Associates comes up with the opinion that each dollar spent on consumer advertising produces three dollars in sales! Published in Media-Scope magazine, the 16-year study included 400,000 interviews and was aimed at determining the impact of advertising on consumer purchasing.

"That thing will never catch on!"

Some examples of filling with hydrocarbon propellants at Peterson Filling

PRODUCTS LAUNCHED WITH HYDROCARBON PROPELLANTS

Propel Sales UPWARD — Cost Less Per Package Unit

Here at Peterson Filling, we are fully equipped for high-speed filling of pressurized units utilizing hydrocarbons (propane, butane, iso-butane, etc.) as propellants *with consequent savings in your costs per package-unit.*

Ideal for a wide range of products, these propellants are popular for use with starches, polishes, cosmetics, shaving cream, window cleaners, charcoal starters and many others.

We also fill pressurized units using halocarbons, nitrogen, or carbon dioxide and other inert gases. For *all* your filling needs... *including gravity liquid filling*... write, wire or phone...

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Dispense An Ocean Of Successful Aerosols

1. **COMBINES THE DESIGN ADVANTAGES OF THE RISDON VALVE WITH THE FIRST AND FOREMOST MECHANICAL ATOMIZING ACTUATOR.**

2. **WIDE RANGE OF APPLICATION**
   Gives excellent performance on all 3-phase products including water-base formulations • Dispenses propellant emulsions or dispersions • Gives Super-spray performance on conventional 2-phase and ultra-low pressure products • Applied to Glass, Metal and Plastic Containers.

3. **WIDER CONE, FINER, DRIER SPRAY CLOUD**
   Softer, more evenly diffused spray eliminates splattering.

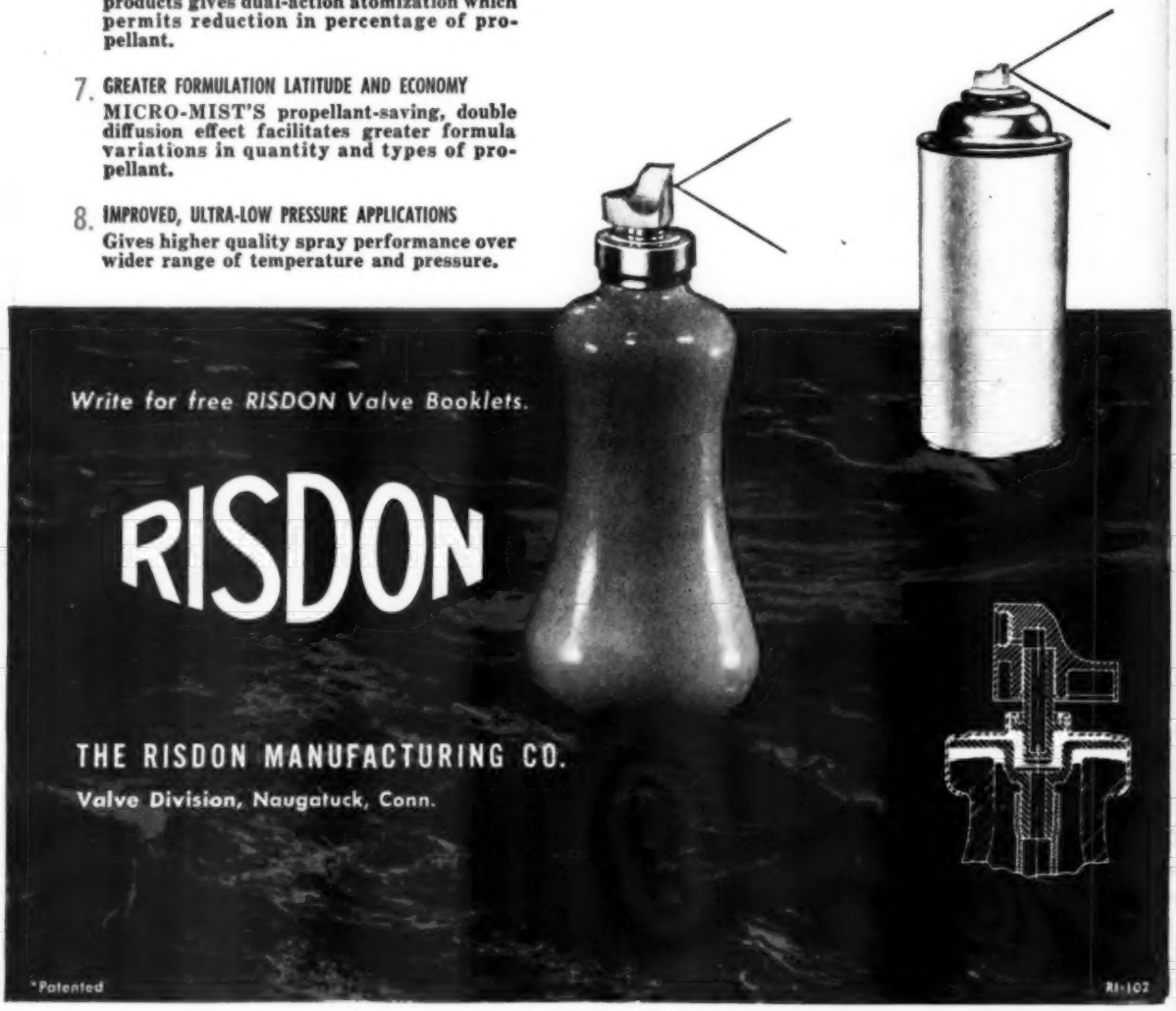
4. **LONGER LASTING CONTENTS**
   Especially advantageous in expensive products such as medicinals and perfumes.

5. **SPRAY CONE CLEARS CONTAINER**
   Eliminates messy accumulation on top of can containers.

6. **IMPROVES PRODUCTS BY MINIMIZING DILUTION EFFECTS**
   Using MICRO-MIST valve on two-phase products gives dual-action atomization which permits reduction in percentage of propellant.

7. **GREATER FORMULATION LATITUDE AND ECONOMY**
   MICRO-MIST'S propellant-saving, double diffusion effect facilitates greater formula variations in quantity and types of propellant.

8. **IMPROVED, ULTRA-LOW PRESSURE APPLICATIONS**
   Gives higher quality spray performance over wider range of temperature and pressure.



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